



***New York
State College of Agriculture
At Cornell University
Ithaca, N. Y.***

Library

.....

CORNELL UNIVERSITY LIBRARY



3 1924 069 542 367

The Midland Florist.

THE
MIDLAND FLORIST,
AND
Gorticulturist,

A HAND-BOOK FOR THE AMATEUR AND FLORIST.

EDITED BY
ALFRED G. SUTTON, F.H.S.

"GARDENING IS THE PUREST OF HUMAN PLEASURES."

VOL. I. NEW SERIES.

LONDON:
SIMPKIN, MARSHALL, AND CO.
NOTTINGHAM: SUTTON BROTHERS.

1857.

@

SB403

1162

XS V.1

@50972.

TO

HER GRACE THE DUCHESS OF SUTHERLAND,

LONG DISTINGUISHED

AS A PATRONESS OF HORTICULTURE,

AND WHO HAS, BY EXAMPLE AND PRECEPT, ENCOURAGED THE

HIGHEST CLASS OF GARDENING,

This Volume

IS, BY HER GRACE'S KIND PERMISSION,

HUMBLY DEDICATED,

BY HER MOST OBLIGED AND GRATEFUL SERVANT,

THE EDITOR.

To our Friends.



TWELVE months have quickly passed, and the time has arrived for us to present to our friends—THE PUBLIC—the collected writings of that period. As our readers are well aware, much, very much of the best of our periodical, is the voluntary contributions of those whose only motive is to be found in their love for the cause of Flora, and their desire to aid its progress. This assistance we shall still endeavour to deserve. We most heartily acknowledge the kindness of our literary friends, in the gardening world. We owe them a heavy debt of gratitude. Many difficulties have arisen, but, with their help, we have surmounted them all. We earnestly solicit a continuance of their favour, which will enable us to promise a volume even superior to the present.

A word to the reader:—The *Midland Florist*, in its new form, has now been a year before the public. It is got up, not as a source of emolument, but as a healthy medium of information for the gardening world; it should, therefore, form a portion of the library of every man who possesses even a cottage garden. It would be unjust not to notice the encouragement it has already received, but, when it is con-

sidered that every practice is laid down in a manner the most straight-forward, that all its details consist of the plainest directions—so important a feature to the working man, and that its principles are honest, we cannot but wonder that its circulation is not trebled. We hope each reader will take the trouble of showing the past numbers to his friends, and endeavour to assist us by procuring new subscribers.

In its present form, we find the *Midland Florist* hardly roomy enough; we are frequently compelled to leave out articles of sterling worth; and if our readers will gain us a thousand additional subscribers, we can promise them, in return, twelve additional pages every month.

•

Our own part in the work has been a labour of love, and if it has given our friends a tithe of the pleasure we have experienced while preparing each number for the public eye, we are amply repaid, and our fondest hopes are realized. Again thanking our friends, we respectfully and gratefully make our bow, wishing them, one and all, a merry Christmas and a happy new year.

A G. S.

RADFORD GROVE, NEAR NOTTINGHAM,
DECEMBER 1, 1857.



A few Words to our Readers.

IN meeting our friends at this opening month of the year 1857, we feel that a few words are due from us ; and if these words at first seem not of the merriest, we must beg their indulgence, and also remind them that we have immemorial custom to uphold us. For we do but as those who so lately "rang the old year out and the new one in," from the thousands of spires, towers, and belfries, of whatever kind, tall or low, Classic or Gothic, Early English, or Perpendicular, time-worn or fresh-chiselled, that adorn, or merely spot the face of our England,—first slowly and sadly, as is meet at the passing away of an old friend, and then quickly and joyfully, as is also meet at the advent of a new one. The old friend for whom we must ring thus gravely is no less an one than our last volume, now completed and ready to be bound up,—not, it is true, in the mournful but frail wrappings of a white shroud, and the tougher one of heart of oak, but in brown pasteboard and green cloth, duly lettered and gilt, for order-loving and dainty eyes. We part from it with sorrowful feelings ; for our heart, by no means fossilized and made hard by the number of similar bereavements it has had beforetime to endure, reminds us, through this volume, forcibly, of the human friends, dead or far away, who took pride in its pages, or wrote and laboured for its success. Of the first—the dead—we may say, "Fear no slander, censure rash :"—of the last, that we trust *no more* will

be dealt out to them. Then, too, we are reminded of the many pleasant hours we have spent in and for the company of this finished volume ; hours

“ Tasting of Flora and the country green,”

and made thus rich by the heaped-up correspondence of our numerous friends, and our own observations of

“ Buds, and bells, and stars without a name,”

with especial reference to its welfare ; and we cannot help thus registering our regret for these enjoyments, that they are past, although with the other hand we bring forward a successor that shall renew them. A larger sphere, we trust and believe, opens for this successor,—already honoured by so numerous a list of god-fathers and sponsors—of names distinguished in the floral and horticultural world. Less abrupt in manner, less ancient in dress, and with an acknowledged editor, we look for it to make great advances in new circles, where, by the side of more elegant, but more expensive contemporaries, it will prove itself in some things not below, in others, superior to them. Our old friends will, we are sure, welcome its well-known form, and will perceive, from this number, what efforts have been made to realize the expectation of enlarged success. The *Gossip* indeed, true to his name, naturally loving fiction instead of fact, has already assured his readers of our failure. If he means our death, he speaks as he *hopes* ; but we, feeling the fresh warm blood flowing in our veins, and full of life and hope, find this rather difficult of belief. An old epitaph, familiar to us from childhood, has for a concluding line, “ I am not dead, but sleeping here.” We can say, we are not only not *dead*, but not *sleeping*, and intend to prove this during the next twelve months. Perhaps the *Gossip* may find the need of a little of our blood, before that time is past. His enlarged price, certainly, does not promise stability or long life.

And now, in conclusion, with a smiling face and a friendly new-year's grasp, we would greet our numerous friends and readers, thanking them for the many and

long-continued proofs we have had of their past kindness, and wishing their way may be, during the coming year, as thickly strewn with real flowers as ours will be with described ones, and that in health and honour they may enjoy the various Edens their Adamic instincts for beauty may lead them to plant and tend, and that we may never cease to keep them company therein!

A few Observations on Styles in Flower Gardening.

If we take a retrospective glance at the flower gardening of by-gone days, entertaining, at the same time, a well-judged assurance of the present proud position of flower gardening in Britain, we must very naturally feel astonished that so much monotony was so long allowed to prevail; that so many intelligent persons should suffer their ideas to remain so long in bondage. For what was the character of the generality of gardens in those days? As to design, a heterogenous cramming together of beds of varying character, thrown down, to use an old adage, as the maggot bites. As to garniture, sundry old and denuded herbaceous plants, with huge staring labels, containing pompous names, and which seemed designed to attract a higher amount of attention than the flower itself, with here and there a Rose or Geranium bush, a few discarded greenhouse plants, or patches of annuals, to provide against the "short-comings" of their lanky neighbours. Such was, in truth, the character of at least three-fourths of them in my boyish days, some forty to fifty years since, and this I speak of the very neighbourhood of the metropolis.

Perhaps the best thing in those times was the old mixed border, in front, perhaps, of a shrubbery. These, indeed, entered very frequently into a happier combination, and served to decoy the perambulator along that ancient abomination called "a shrubbery," which, "like

a wounded snake, dragged its slow length along,"—the perambulator all the way looking most anxiously for some peeping aperture, some tempting glade, whence he may make his escape into the pleasant fields behind—with the village spire and "cottage homes of England" all most religiously excluded. Where is the landscape gardener now who dare peg out one of those long and tiresome belts, which served so well to express severe limitation, or a boundary line?

But to revert to my main object—flower gardening as it is, and, let me add, as it may be. I do not wish it to be understood here that I have some wondrous idea to broach, something quite new to propound. I would rather so direct my observations as to prove to those less sanguine in the matter, that we are not only progressing, but that the subject seems to acquire an extra impetus at every move. To speak of systems of flower gardening, I regard what is termed the "ribbon system" as a decided step in advance. Some may imagine that it is only adapted to huge places, like Trentham, Shrublands, Chatsworth, &c., but this is a gross mistake. True, in the hands of a Fleming it assumes such immense proportions, and bears so many marks of skill in the arrangement and disposition of the habits and colours, as to serve, for a moment, to confound and dishearten the tyro in such matters; nevertheless "none but the brave deserve the fair." The first surprise over, we take fresh courage, and frequently perceive that what we had fancied a matter depending on extent and affluence alone, is indeed a principle of unbounded application.

It may here be observed, however, that the "ribbon system" is peculiarly adapted to promenades; that is to say, those straight lines of walk, over either level ground or regular inclines, which so much prevail in later times, and which are, perhaps, but the old terrace restored with modifications. Here, of course, the avowal of art is requisite, and the "ribbon system" may be carried out in all its grandeur; for it is at least imposing, to use a somewhat ambiguous phrase. But I would

now refer to its application to flower beds, of whatever shape or style. I do not here desire to be understood as wishing this style alone to prevail; let me at once disavow all such horticultural bigotry. To do this, would be to repeat the same stand-still character of mind which I a few minutes before repudiated as one of the infirmities of our venerable ancestors. This understood, I must observe that, in my opinion, a "ribbon" parterre, providing it was well handled, would be exceedingly pleasing. Here, however, two distinct characters might present themselves for an approval, the difference in character being grounded on style of colouring, irrespective, for the present, of other considerations. I allude, here, to contrast and harmony: the one seeking to attract and surprise, the other, as I conceive, of a higher order of taste, uniting in forming "a whole."

It is somewhat singular that so little distinction should be paid, even in this advanced age or period, to what the painter calls harmony, as somewhat opposed to contrast. Now it will be found most generally the case, I think, that persons in advanced years, if possessed of a healthy order of taste, are more inclined to what I mean by harmony, than to those surprising contrasts which serve—may I borrow a Shaksperian phrase for a moment?—to "split the ears of the groundlings."

Now a "ribbon" parterre, or congregation of flower beds, on the contrast system, would be, perhaps, too striking for the majority; but one with the colours softened down and relieved, harmoniously associated, would, I think, give much satisfaction. But irrespective of this, there can be no doubt that where the massing system is used, a band or edging of a different kind to the mass, kept quite low, and running into a complete ribbon, is not only permissible, but exceedingly agreeable to most persons of taste. This I am well assured of, having both practised it and known it to be carried out by others to whom I had suggested it, and who have declared that they intended to push the idea to the utmost bounds. How coarse it looks to see straggling looking plants extending their uncouth figures

beyond the legitimate margin of the bed, where, if anything like high keeping is sustained, their points must be dubbed away, or swept away by the relentless besom. I need scarcely observe that the bed never possesses any pretensions to elegance afterwards.

As for the genuine massing system in all its integrity, I feel assured that its days are numbered in small gardens.

Who, having, perhaps, only half a score of beds, can afford to have three-parts of them filled with self colours, to the exclusion of some of the most sprightly and genteel-looking plants our gardens possess, and whose only fault is that they are not recognized as mass flowers. When, however, we come to deal with such grand and extensive objects as the Crystal Palace, or those wide-spread and princely pleasure grounds for which our native isle is so famous, then width, breadth, and general features require a corresponding breadth of colouring. Here the massing system is at home, and promenades of ribboning impart an amount of power and dignity of the very highest import.

Still, even in such scenes of grandeur, after the eye has become as it were saturated with breadth of feature and gorgeous colouring, how delightful it is to diverge into some episodical plot, snugly concealed amongst noble shrubs and evergreens, wherein all is harmony and repose, and where, instead of sparkling contrasts, all is chaste, elegant, and redolent with perfume. Such may be the Rosary, the mixed flower garden, or, indeed, any choice methods where harmony and sound relief prevail. And here I must be permitted to express an opinion, that if there be any overweening tendency to extremes, warring against true taste, in the fashion of the day, in regard of decorative matters in ornamental gardening, it is a tendency to make everything of the kind too bald; a part at least of the beauties of pleasure grounds should be half-concealed, should require "wooing," if I may be permitted the term.

"Let not each beauty everywhere be spied,
Where half the skill is decently to hide."

So said one of our greatest poets, himself a landscape gardener of pretty good repute.

I have before alluded to the old mixed borders, which I am glad to find are on the revival in many parts, under certain modifications. These are, of course, generally of rectangular character, and occasionally form very good connecting links between the flower and kitchen garden, or, indeed, other divisions. Such, as to outline and general style, permit a more rollicking sort of freedom than is admissible in the flower garden itself. I speak, here, of mixed borders without any shrubs. As for those already in part pre-occupied by such garniture, why there is little to suggest concerning them. They scarcely come within the present category, seeing that we cannot imprint any marked or decisive style on them. The mixed flower border, in my opinion, should contain three distinct heights, and five or six distinct habits in flowers; without these it is assuredly incomplete. Thus, to put a case: we may suppose Hollyhocks down the centre, at considerable distances, and in groups: Roses in the centres between the Hollyhocks, in the second line; Fuchsias and other exotic specimens of large size and bulk in a third line; Geranium bushes in a fourth; good bedding flowers, as Calceolarias, &c., in the fifth row; and the sixth composed of choice annuals, Verbenas, dwarf Lobelias, &c., &c.,—in the outer or marginal row, the latter kept prostrate by pegging.

Some of your readers will imagine that all this requires a monstrous border to accomplish the object; not so wide, however, as I shall show on some future occasion.

I fear these observations may prove too discursive for some, but, with deference, I submit that the fault is as much in the subject as the writer. I do not assume to be an oracle in these matters. I would fain have my remarks considered as suggestive, rather than otherwise, and, if the flower-loving readers of the *Midland Florist* require it, I may probably return to the subject, when leisure permits.

ROBERT ERRINGTON.

Oulton Park, Tarporley.

Geranium Empress Eugenie.

THIS splendid Geranium was raised by the late W. S. Story, Esq., of Newton, South Devon, who for many years devoted much time to the hybridizing of flowers, more especially the tribes of Ericas, Epacris, and Fuchsias. Most of the Epacris now in cultivation were raised by him, and sent out by Messrs. Veitch, Prince, Low & Co., A. Henderson & Co., and E. G. Henderson & Co. Mr. Story has also paid great attention to the white Geranium, and in order to secure successful results has kept a place entirely without the coloured varieties. It is a very difficult matter to get white Geraniums, they having a great tendency to go back. Until of late years, nearly all the white varieties have been sent out by Mr. S., through Messrs. Veitch, Beck, Turner, Fuller, &c.

The variety now figured is considered the finest formed flower, with red or bright rose spot, ever sent out with ground of a very pure white. The habit and freeness of flowering is first-rate, and truss good. Altogether forming a most splendid addition. The white varieties with plum coloured spot are much more common.

Empress Eugenie is sent out by Messrs. E. G. Henderson & Son, Wellington Road, St. John's Wood.

Cultivation of the Pansy in Pots.

MANY persons object to the cultivation of this favourite flower, alleging that its tendency to degenerate is a source of much disappointment, and that an unusual amount of attention and care is required in their cultivation, I will admit that the Pansy has a tendency to degenerate, but only when allowed to have an unlimited range of the bed, border, or other place it



RANUNCULUS EMPRESS EUGENIE HENDERSON

may be growing in; but the attention required is not more than is necessary in growing any class of plants to perfection. A few hints on growing them in pots may be acceptable to many. The advance made in the quality of the flower, its shape and beauty of colouring, has been very great within the last few years, and we have not yet reached the climax; raisers appear as anxious as ever to produce new varieties, and although the number sent out each year may not be so great as formerly, yet every season adds greatly in size of flower, purity and evenness of colour, and perfect shape. Grown in pots, and there is nothing more beautiful among our spring flowers for this purpose, strong plants are necessary, and in order to give some practical information to those who may wish to grow them in this way, I will begin at the beginning, and presume that the cuttings are in the ground, or in pots, in April, using a sandy soil. Where there are several cuttings of one sort, some will take the lead; the best of these, having the the greatest number of shoots, may be planted out, when rooted, into a bed, having any aspect but a south one, for nothing injures the Pansy, as regards foliage and flower, so much as the hot sun during the summer months. The soil should be good, but not strong with manure; a little leaf mould is also beneficial. They should be planted about fifteen inches apart, and should be pressed moderately tight. At this distance plenty of room will be given for pegging down the shoots, which must be attended to occasionally. The plants must be kept clear of weeds, and the side shoots, as they make their appearance, must be removed; six shoots will be plenty to encourage to grow. The blooms will be required to be picked off as they appear, except perhaps a few in autumn, which on no account must be allowed to seed. During dry weather, water must be liberally given, using occasionally liquid manure. To prevent the ravages of the wireworm, the maggot, slugs, and earwigs, for they are all fond of the Pansy, they must be occasionally looked over; in mild dry weather, this should be done every morning. Soot sprinkled over the beds, to a certain

•

extent checks the wireworm and maggot, and encourages a strong growth of a dark green, but the flower is coarse, and has not that purity of colouring which is so beautiful in some varieties. Keeping the beds clean and neat, and the plants pegged out, with other attentions before named, will be all that is necessary till October, when the plants may be taken up, reducing the ball a little, and also reducing the shoots of all those plants that may have more than six or seven leading shoots. They may be then potted into forty-eight size pots (large), using some good soil, consisting of three parts good loam and one part leaf mould, well rotted manure and some old cow dung in equal proportions, with a little silver sand. The compost should be prepared some time before using, being well mixed together and placed in a dry shed. The pots should have moderate drainage with broken pots. The plants must not be potted tight. The shoots need not be pegged down in the pots until after the plants have been watered, which will not be required for a week after potting. Use a fine rose watering pot for the purpose. Water must be given sparingly through the winter. From the time of potting to the time they are required to flower, attention to the removing of side shoots must be given. In frosty weather, a little protection will be necessary. The plants, after potting, must be placed in a frame, close to the glass. Give air at every favourable opportunity, and as much as possible, by taking off the lights, and when this cannot be done, the lights may be tilted. Never allow the foliage to get wet, in winter, and remove all flowers as they appear. At the beginning of February, or as soon after as the weather will allow, the plants may be finally repotted, using compost as before recommended, and thirty-two or twenty-four size pots. The plants must be pressed moderately tight, and placed in the frame again, close to the glass, lowering them as they grow. They will not require watering for a week. The instructions previously given for autumn growth, such as removing shoots and flowers, apply still; in addition, as the

season gets on, and we have mild days, an occasional light shower will benefit them, and liquid manure water, used once or twice a week, will serve to stimulate them. Air must be abundantly given, in favourable weather, night and day. Go over them often, to remove all decayed leaves, and at times stir the surface of the soil carefully. If the plants are required for exhibition, let them bloom as they please for a fortnight or three weeks before the show, always removing the withered blooms, as soon as they become so. Remove the side shoots once a fortnight. These may be put in as cuttings. If greenfly make its appearance, the plants must be fumigated with tobacco several times, in small doses, too much being injurious to the plant. In tying up the blooms for exhibition, all the flowers should be tied so as to face one way, with the tallest stem at the back, using small neat willow twigs. Twist the matting with the fingers, and tie round the stick, tying the stem rather tight, being careful not to break the head off. By this means the blooms may be made to face one way, by turning the stick round, and a plant with from twenty to twenty-four blooms is a very pretty object, and a collection of Pansies in pots, at any exhibition, is not without many admirers. Sufficient, I think, will have been said with regard to growing them, and if followed up, I am sure they will not fail to reward the grower by their extra beauty. Should any readers of the *Midland Florist* require information upon growing this popular flower, I shall be happy at all times to give it in the pages of this work.

I give a list of the best varieties for growing in pots.

CLASS I.—SELFS.

DARK.	YELLOW.
Africanus, very large	Adela (Turner)
Duke of Perth (Handasyde)	Ophir (Widnall)
Jeannie (Downie & Laird)	Primrose Perfection (Turner)
Lord Dumfermline (Crombie)	Sovereign (Dickson)
Mary Taylor (Downie & Laird)	WHITE.
Memnon (Turner)	Mrs. H. B. Douglas
Royal Albert (Turner)	Royal White (Thompson)

CLASS II.

Having gold and yellow grounds, with margins of marone, crimson, and bronze, and intermediate shades.

Alpheus (Dickson)	Lord John Russell (Turner)
Alice (Downie & Laird)	Lord Palmerston (Turner)
Alfred the Great (Turner)	Monarch (Hale)
Brilliant (Turner)	Pandora (Hunt)
Cyrus (Dickson)	Satisfaction (Turner)
Duke of Newcastle (Turner)	Sir J. Cathcart (Turner)
Emperor (Hale)	Sir Joseph Paxton (Betteridge)
Fearless (Schofield)	

CLASS III.

Having white and straw grounds, with margins of purple, lilac, blue, and their intermediate shades.

Aurora (Bell)	Miss Nightingale (Dickson)
British Queen (Dickson)	Miss Walker (Syme)
Charles Cowan (M'Nab)	National (Turner)
Constance (Turner)	Nonpareil (Dickson)
Earl Mansfield (Dickson)	Princess (Dickson)
Lady Carrington (Hunt)	Queen Victoria (Dickson)
Marion (Dickson)	Sir Colin Campbell (Paton)
Miss Talbot (Dickson)	

JOHN DOBSON.

Woodlands Nursery, Isleworth.

Transmission of Cuttings by Post.

ALTHOUGH I cannot claim the merit of first introducing this subject into the floral world (that being due to our great horticultural reformer, Mr. G. Glenny), I can say I am the first who carried it into practice, and published a priced catalogue of cuttings. I will now proceed to state what I consider the advantages of the system. In the first place, cuttings can be obtained at about one-third the price of plants. The box and postage together will not amount to the price of a small basket, containing half a dozen plants in pots, and, posted in the evening, would be delivered the following morning in any part of the kingdom, and come out of the box as fresh as when cut from the plants. Now

too many of us are aware that a basket of plants, besides the expense of carriage and package, to come any distance, would be from two to five days on its route, and consequently the plants would not be much better than cuttings, when received. I do not mean that packages are always so long on the road, but that it is the case in too many instances. Now, in order that I may be perfectly understood with regard to the transmitting cuttings by post, I will suppose one of your readers may wish to have a few Dahlias, and having a hotbed or some other contrivance in readiness, he will decide on the sorts he would wish to have. A dozen good sorts may be had for from two to three shillings. He will then give his order to the parties who supply them, and if all are ready, he may receive them next morning; but with Dahlias it often happens, if you have three or four roots, that you cannot ensure a cutting at any time you wish. For instance, one morning last March, I received twenty orders, seventeen requesting the same variety, viz., Bob. I had three ground roots at work, but after taking every available cutting, I could only muster nine, so that I had to detain eight of my orders until poor Bob was again ready, which I believe was in four days. I mention this, that parties ordering cuttings may not be disappointed, if they have to wait a day or two before they are sent. It is not so with Fuchsias, Verbenas, &c., as they are always ready, and you may have them any time of the year.

J. MORSE.

Dursley.

The Chrysanthemum.

BEING an old practical city gardener, of twenty-four years' standing, it enables me, through studious attention to the floral department of a garden, to form some idea of what is best for gardens in smoky towns, where flowers are looked upon as a great boon by the resident,

and where the old saying exists, "If we can only get a bit of green, it's better than always looking upon nothing but solitary bricks and mortar, from one year's end to another." In large towns, there are generally a number of squares, nice bits of gardens at the back of many of the houses, and little sunny spots abutting upon cottages, where may be cultivated some flower or other. I have noticed with delight the vast interest the working classes take in these little bits of gardens, the pains they exert in keeping up a succession of flowers, and it is truly astonishing the rivalry there is to excel each other. There you see them, like happy princes, enjoying their pipe and beer, and looking over their little productions with such a peaceful happy mind, as though they were in Paradise. And, after all, which looks best, to see a man sitting in a public-house on a summer's night, after toiling in a factory all day to earn bread for himself and family, or to see him go home, have his tea, and walk into his garden, there to amuse his mind by cultivating nature? In this he sets an example to his children, whose nature is to be fond of flowers, for the infant in arms will always hold out its tiny hand for a flower, if offered, and appear delighted at receiving it. Then why not train up children to love them, and they will not depart from it? There is also another admirable feature in the character of the working man who is fond of his garden: not one in a thousand will you find taken up for misdemeanour and sent to prison, because the cultivating of nature's beauties improves his morals, enlightens his inquiring mind, and assists in suppressing the evil thoughts that are continually predominant in the heart of the lazy, careless man, who loves the beerhouse.

I know that this is a simple truth, from my own personal knowledge around this great metropolis. You have a cheap, valuable little work, called the *Midland Florist*, which has obtained a great circulation among the working classes who have their little gardens, and especially in the midland counties. This has tempted me to take the liberty of sending you an article.

The only object I have is to do good, by making known what has proved so beneficial to many. I will therefore, by your permission, state, for the benefit of amateur readers, what flowers have been the most successful with me, the manner in which I treat them, with their names, colour of bloom, height (as near as possible), and all particulars relating to them. I fear I shall be too late for you to insert all in one number.

Finding, among all the vegetable kingdom, that no plant flourishes among smoke like the Chrysanthemum, I have for some years cultivated it more extensively than most people, and, consequently, have tried some hundreds of varieties to select my stock from ; but I shall only name those that I have proved to be good and free blooming. I may add, that I think few flowers have taken so rapid a lead as this plant has among all classes, both for greenhouse and out of door culture, for, go where I may, in nearly every garden they are to be seen, so persons may as well grow good ones as bad ones, it is just the same trouble. The Chrysanthemum has two good qualities,—it is green all the summer, and blooms when other flowers, and even the leaves of the trees, are gone.

After preparing my borders in the winter, by digging (or rather using Parke's patent fork), I subsoil my ground, by going two feet deep, with a good dressing of rotten manure, well worked in from eight to ten inches. The sooner this is done the better, to get the ground well mellowed by the frost. In March, I divide the old roots, and commence planting, choosing the strongest suckers, and not putting more than one or two shoots to each root. These ought to be planted about two feet apart, if intended to make a border without Dahlias, Hollyhocks, or other summer flowers. If other plants are to be put in among them, they must not be planted so thick. I generally sow Mignonette among mine, with intermediate stock, Calceolarias, Verbenas, and other plants. I peg the Chrysanthemum plants down when they grow to the height of eight to ten inches. This saves a vast deal of tying up, and causes them to

bloom much shorter, with better foliage, and does not retard the plant in the least. Bear in mind I only do this once. As summer advances, and hot dry weather sets in, they should be well watered, three times a week. This I do in the evening, as the plant feeds on it all night, and is better able to stand the next day's heat than if watered in the morning, and also keeps a good foliage. As soon as the fibres show themselves on the surface, to prevent the sun from drying them up, I mulch them with a little decayed manure, but good rich compost is the best for this purpose, or anything that is good in mould, as dung is apt to hold too much wet in the autumn, and retard their flowering, particularly if we should have an October like the one just past. I have lost hundreds of plants through using green horse-droppings, in consequence of too much rain, followed up by mildew and insects.

The Pompones I plant in front of the border, in April, in the same manner as the large ones. They bloom very short, and finish off the bed with a nice descent, like a stage. It must be borne in mind that I clear away everything off my borders in September, to allow the Chrysanthemums fair play, and don't tie up too much, as they look much better hanging carelessly about. The varieties I would recommend for border flowers shall be given in a list presently. Dispensing with the border flowers, I will now commence with what are usually termed first-rate show flowers, all incurved petals.

This beautiful collection of Chrysanthemums almost exceed Dahlias in size and form, if properly grown. If grown in open borders, instead of large pots, the following is the plan I would recommend :—

Prepare your border (a south aspect is best) in the same manner as directed above, plant out in March, singly, strong plants, eighteen inches apart. The more you can establish in pots, in the autumn, the better, by keeping them in a cold frame all the winter, as you get much stronger plants and larger blooms than by spring cuttings ; besides you have them bloom earlier,

and the earlier the bloom the larger it comes. When planted, mind the birds do not peck off the crown, which would cause laterals to be formed, and that is not desirable. As the plant advances, it will keep throwing out side shoots, or laterals. These must all be taken out as soon as possible, and continue to do so till the crown breaks, and throws out two shoots. Let both these grow, as the plant is capable of supporting two as easily as one. When these show the flower buds, which are generally in clusters of four or five each, choose out of them the one most healthy, bright, and shiny, and take away the rest, so that you have two good, healthy, and promising flower buds. If the crown should throw out three shoots, do not take them away, but leave all, and disbud accordingly. Watch your buds carefully, that the earwigs do not eat them, and when they show colour, cover them over with shades, as you do Dahlias. If you have a large quantity, some coarse canvas is an excellent covering; they last a month longer under it. I use a covering of canvas stretched on laths, and, with care, it lasts for years. Should you happen to have a nice wall round the garden, the better still, for you may plant show flowers against it, a double row, about eight inches apart, will give plenty of room, and cover over with canvas or good close mats. Take care, when the buds are swelling, to sprinkle night and morning. This is of great importance. Water three times a week, from July, with liquid manure, soapsuds, horse-droppings, cowdung, sheepdung, or anything you can get, only let it be diluted well with soft water, say sixty or seventy per cent. By no means water with liquid manure after the bud is as large as a sixpennypiece. Be very careful of the earwigs, or they will eat your petals.

If grown in pots, your compost must be rich maiden loam and good rotten dung, mixed with plenty of pounded oyster shells or bone dust. Let them be moved into number twelve pots, well drained, as soon as you get good strong plants, and, when established, plunge them in a sunny spot, halfway up the pots, but mind

you have the bottom of the hole you put them in loose, to allow the drainage from the pot to get clear away. When the roots of the plant are got all round the pot, then begin to water with liquid manure, as before named, twice a-week, and gradually increase to every day. Watch your laterals, take them off, and treat precisely as the border plants. Allow no suckers to rob the mother plant till it shows the flower bud ; then you can let them grow, if you like, for next year's stock ; but I would prefer a change of plants from another soil for the following season, as they do better with a change. If large flowering plants are required, for decoration, I would plant them early in March, in forty-eight pots. When eight inches high, stop the leading shoot carefully with the finger. Don't pinch it off, but carefully rub out the heart, by removing no more than you can possibly avoid, as, by so doing, you save four or five joints. When the plant is full of roots, remove it into the pot you intend blooming it in. Stop your laterals again as soon as practicable, say in the middle of July. To make sure of early blooming, you had better not stop later, as I have found, to my sorrow, stopping so very late (say September) does not always succeed, and I have this season two hundred plants that will not bloom at all, through late stopping last year. They did remarkably well, but it does not do to run the risk, the seasons vary so. Tie out your plants as wide as you can, to let in the air. It is surprising how soon they fill up after tying out.

[To be continued.]

SAMUEL BROOME.

Temple Gardens.

The Hydrangea.

THOSE who remember the great horticultural show at Cremorne Gardens, for the benefit of the British Orphan Asylum, will not have forgotten the noble

specimens of the *Hydrangea* shown on that occasion, in different styles of growth. Some were splendid bushes, with many heads of flowers, others dwarf plants, with heads as large as Cauliflowers, and scarcely a foot high ; some bright pink, others intense blue. Many contended for the prizes on that occasion, and we can answer for the practice that produced one lot, at least, and they not the worst. The bushes were plants that had bloomed tolerably well in the borders, taken up in the autumn, the roots cleaned and pruned, retaining all the clean healthy portion, and cutting out with a sharp knife all that appeared useless. These were potted in six-inch pots, all the weak breaches cut away clean, and five or six of the most healthy cut back, to form eyes. These were kept in the cold frame, closely shut up for a few days, and then allowed to have all the air they could on mild days, much after the same fashion as Carnations, Picotees, or Auriculas would have it. When they broke, and were set on for growing, they were carefully disbudded where no wood was required, and the buds left on were retained for their favourable position in reference to the formation of a plant of handsome shape. As they advanced, any useless branch that escaped notice in its bud state was taken off, and the rest allowed to grow. The soil they were potted in was two-thirds good friable loam, and one-third dung from an old hotbed. As soon as the pots filled with roots, or rather, we should say, as soon as the roots reached the side of the pot, and before they began to mat, they were changed to eight-inch-sized pots, and carefully removed without disturbing either the ball or the fibres, and then returned to the frames. By giving all the air they could have, and keeping the plants close to the glass, they grew strong and stocky, and the leaves were large and well coloured. In this way they continued to grow until the blooms showed at the ends of all the branches. They were shaded from the hottest midday sun, with mats placed at a distance, and the frames kept perfectly open, except in north-easterly winds and cutting frosts. As the flowers became more developed,

they were removed to the greenhouse, and kept near the glass, but were not exposed to draughts of air. In this way they advanced to perfection, but their heads of flowers were too heavy for their stems, robust as they were, and each stem had to be supported by a twig, to which it was tied, but which was scarcely perceptible. Had they been continued in the frames, the flowers would scarcely have grown so large, and the stems would have supported them, but they would have been a month later in bloom. As the flower heads were growing, they were twice watered with liquid manure, there being, however, three plain waterings between. The liquid manure was made with a good spadeful of very rotten dung, from an old hotbed, to six gallons of water.

Those which had only single heads were produced from cuttings, taken four inches long from the old plants, after they had formed their end buds. These were struck in gentle bottom heat, under a bell-glass, and, when well rooted, potted in four-inch pots, and grown on till the roots touched the sides, when they were changed to six-inch pots. Their treatment after this was the same—cold frames till the bunch of flowers showed, and then removed to the greenhouse, where the temperature was higher and less variable. These heads were single, and much larger than the others, some of them as large as a man's head. These were also encouraged twice with liquid manure, in the same way as the others.

We have seen Hydrangeas in pots, looking very miserable and poor, the branches numerous and weakly, the leaves discoloured, the blooms small, and anything but bright and lively. Turn them out of their pots, and we find the roots a solid mass of matted fibre. If these plants are worth saving, shake out all the old soil, and to do this it may be necessary to soak the ball for an hour, and wash the soil out, before you can disentangle the roots. Then trim off the long, old, and rotten fibre, leaving nothing but healthy root, and not too much of it. Pot it in the stuff we have mentioned,

cutting out every one of the weak branches, and cutting back the strong ones, and when the plant begins to grow, rub off every bud but those which grow in the right places to form a good shrub. There is more cruelty to plants in begrudging them pot-room than there is in stinting them of water, for we see in old-fashioned greenhouses many good plants grossly neglected, standing in the pots they have filled for years, and living upon the modicum of water that is doled out to them when the other plants have theirs; as to any nourishment from the soil, there is none in it.

GEORGE GLENNY.

Notes of New Dahlias of last Season.

As a guide to Dahlia growers generally, I beg to give a descriptive list of the best Dahlias that were sent out last season, and which stood the test of showing at all the leading exhibitions.

Duchess of Wellington (Turner).—Pure cream, medium size, of good depth, first-rate.

Perfection (Keynes).—Shaded orange, first-rate form.

Duchess of Cambridge (Barns).—White, edged with carmine, fine.

Mrs. Wheeler.—Crimson scarlet, extra fine form, but at times the centre does not cover.

Bessie (Turner).—Bright yellow, of moderate properties.

Princess (Rea).—Bright rose, high centre, new in colour, and fine.

Lord Raglan (Keynes).—Orange buff, fair size, and fine.

Colonel Windham (Turner).—Shaded ruby, with violet tinge, extra fine, and constant.

Lord Palmerston (Turner).—Reddish crimson, large, and fine.

Lollipop (Turner).—Pale buff, high centre, reflexed, constant.

Grand Sultan (Turner).—Deep marone, average properties.

Captain Ingram (Turner).—Dark crimson, middle size, good.

Florence Nightingale (Keynes).—Light buff, tipped with white, fine fancy.

Enchantress (Alexander).—Lilac blush, flaked and spotted with crimson, large and good fancy.

Inimitable (Salter).—Orange salmon, striped with crimson, extra fancy.

Chamelion (Rawlings).—Pale yellow, slightly tipped red, useful.

La Vogue (Salter).—Buff, tipped with white, good fancy.

Mutabilis (Wernenman).—Salmon buff, flamed with red and tipped with white, good fancy.

There may be a few more useful flowers, but I have not seen any other worth notice.

H. LEGGE.

Edmonton, Middlesex.

Strawberry Forcing.

THERE is no fruit that we possess of so much value to the amateur gardener as the Strawberry; its great beauty, its delicious flavour, the little room it requires, and its productiveness, alike serve to render it an universal favourite. Having been for some years a successful cultivator, I beg to give my practice, for the benefit of your readers. Strawberries may be forced in almost every garden structure, but the amateur of limited room has not at his command any great amount of these means. Presuming that the plants have been prepared, as has often been directed in the pages of the *Midland Florist*, I introduce a first lot into the early vinery, when I begin to force. The low temperature that is at first required for the Vines answering well for the Strawberries, they set and ripen their fruit in the vinery; but for successional crops, I bloom and set the fruit in pits, and ripen them off either in pine stoves, vineries, or peach houses, whichever I may have at command. Supposing the amateur has a small house purposely for Strawberries, and the forcing begins in January, the plants should be placed as near the glass and as far from the drying influence of the flue as possible. During the first week, the temperature of the house should be kept at about forty degrees; after which, it should be gradually increased till the plants are in bloom, when it should be about fifty degrees. It should be kept at this point till the fruit is

fairly set, when it may be increased to sixty degrees, at which temperature the fruit may be successfully ripened. When the fruit is set, it should be thinned, reducing it to from six to ten berries to a plant, according to size and strength. During the whole time of forcing, all the air that can possibly be given without reducing the temperature, should be admitted, but all cold draughts should be avoided. The plants should not be allowed to become dry at the root, nor should they be kept too wet, as either state is very prejudicial to the Strawberry. I always use liquid manure to my plants, from the time of introducing them into the house till the fruit begins to colour, but great care is taken that it is not too strong. I put about a pint of liquor to a gallon of water, and this I find of great use to the plants. All runners should be taken off as soon as they appear, and fresh lots of plants prepared in a pit or frame, to succeed those in the house, when the fruit is picked. Strawberries may be successfully forced in a greenhouse, or other place ; but they will not be so early, if there is not a sufficiency of heat. Of the varieties best suited for forcing, first stands Keene's Seedling, well known to every one. The Black Prince I do not like, as, in some places, it does not succeed, being a bad setter, small, and very subject to mildew, which I have never found to attack other Strawberries, but this I believe to be produced by over potting, and consequently keeping the plants too wet at the roots. Ingram's Prince of Wales is a great favourite with me ; it is large and handsome, and a very good bearer and forcer. Trollop's Victoria is a very handsome fruit, and tolerably good for forcing, but of very indifferent flavour. I shall discard it another season. The British Queen forces well for a late crop. I have tried Eleanor rather late in the season, and found it answer admirably. Filbert I have not yet tried, but have no doubt it would succeed ; as an outdoor variety, I find nothing to equal it in flavour, bearing, and general good qualities.

WILLIAM SHIPLEY.

Heywood Gardens, Westbury, Wilts.

The New Fuchsias.

HAVING grown all the new Fuchsias of 1856, I send you the names and descriptions, with my opinion of them, as they bloomed with me.

Emperor Napoleon (Banks).—Rich crimson sepals (wide), corolla deep violet, well reflexed, good form, large and fine.

Venus de Medici.—Tube white, with sepals of a bluish pink, corolla violet blue, well reflexed. I consider this the best light Fuchsia out, and a free bloomer.

Donna Joaquina (Banks).—Tube and sepals crimson, corolla violet blue, well reflexed, a free bloomer, and exceedingly fine.

Countess of Burlington (Story).—Tube and sepals scarlet, corolla pure white. This is the best white corolla Fuchsia out. Reflexed and very beautiful.

Volcano di Aqua (Banks).—Sepals rich scarlet, corolla violet, well reflexed, good size, and free bloomer.

Charlemagne (Banks).—Sepals rich scarlet, corolla violet purple, well reflexed, a free bloomer, novel, and very striking.

Wonderful (Epps).—Sepals and tube scarlet, corolla violet; a very large and showy flower, but not well formed.

Conqueror (Smith).—Sepals and tube crimson, corolla purple, well reflexed, large, and free bloomer.

There are several other varieties, but I do not see any improvement on those already out.

J. COURCHA.

Hart's Lane, Bethnal Green.

A Design for Amateurs' Gardens.

I HAVE often thought that amateurs, contiguous to large towns, might make great improvement in their gardens by forming themselves into companies, for the purpose of employing a practical and working gardener, to live on the spot. He would not only do the superior work, such as the management of flowers, fruit trees, &c., and make himself generally useful, but would be able at all times to give the required information to each member, on any subject relative to gardening, and

by residing at the gardens, would be a very great protection to the establishment, against prowling thieves, &c. The consequence of all this would be a greater and better display of flowers, fruit, and vegetables, and a superior style of gardening. The accompanying design is not intended as a specimen, but merely to show what may be done, and to set parties a thinking; for so much would depend upon the shape, size, and quality of the ground, that to attempt to give any particular design would be preposterous. No. 1, is the entrance. 2. Gardener's house. 3. Room, for the company's private use, for tea parties, horticultural exhibitions, meetings, &c. 4. Grass plat. 5. Walks. 6. Arbours. 7. Private gardens for each member, divided by espalier fruit trees. 8. Entrance to each garden. 9. Flower borders. 10. Shrubberies, &c.

J. HAYTHORN.

Wollaton Gardens.

The Present Claims of the Double Anemone.

IT is not the intention of this brief article to expatiate on the beauties of this hardy perennial, or to make a comparison of its claims to a position in the category of florists' flowers; but rather to remind the cultivator of the claim this flower has upon his attention during the month of January. Of the two seasons for planting, viz., the month of October and the end of January, the former is (although attended with some additional risks) undoubtedly the season indicated by nature, when left to her own work. The proneness of the Anemone to commence growth immediately after maturity, is a fact generally known, and one that often causes anxiety to the grower. His aim is, or should be, to secure for the tubers a season of perfect rest, but not of too long a duration. Those who have planted in October, have now good plants, with a dozen compact prettily indented leaves, and a little protection from the severities of

January will be gratefully returned. To those who cannot conveniently use flake hurdles or hooped canvas as a protection, I would recommend a top-dressing. First go over the bed, and stop the holes made by the protruding leaves, or by worms, with dry soil, and then top-dress with a little leaf mould, or with leaves half-decayed. This loose and light addition will afford some protection to the crowns of the tubers, and to the young foliage springing therefrom. Let me advise those who have not planted to do so the first open fine weather at the close of the month, or the beginning of February, in a rich light loamy soil, blessed with a freedom from wireworm if possible. Plant two inches deep, and seven to nine inches apart, with a gentle pressure only, as the tubers are fragile, and with a little discerning care to place them the right end upwards. If the bed is protected from rain a month before, and two or three weeks after planting, in a manner not to exclude the air, it will be well done, and the florist may wait in quietness and patience for a few weeks, till his favourites appear above ground.

CAREY TYSO.

An Address

TO THE FLORICULTURAL COMMUNITY OF GREAT BRITAIN
AND IRELAND.

BY A WORKING MAN, WHO HAS HANDLED A SPADE.

BROTHER AMATEURS.—It may be thought presumptuous for an humble individual to attempt to address such a wide circle, and convey his ideas and wishes to the thousands into whose hands this work may possibly fall, but, in doing this, I wish it to be explicitly understood that I have no sinister designs to serve, no malicious purposes to gratify, nor any ill-will or disrespect towards any contemporary, I simply do it with a view to the advancement of the science, and in gratitude to a work from which I, as well as thousands of my fellow men, have derived no small degree of pleasure and information, and to which I lent my humble aid at its first commencement.

Allow me, then, to address a few lines to you at this critical juncture. You are most of you aware that the grim monster has called away its late proprietor, and it has consequently passed into the hands of his son, who promises, in his prospectus, just issued, that nothing shall

be wanting, on his part, to render it well worthy of the support of the floricultural public.

This appears to me a strange fulfilment of the prophecy of its decline with the year 1856. Oh! say some parties, it is only its last struggle, it must go down, it cannot live. Well, I will let the public speak in reply; but it shall not die by any side thrust from me, for, although only a humble devotee at the shrine of Flora, I have the audacity (contumacious audacity it may be) to take upon myself to solicit you to aid the new proprietor in carrying on the work, as it is only by your aid and kind co-operation that it can be carried on successfully, and made what every lover of the science wishes to see it, a free, independent, and liberal advocate of the lovely, interesting, healthful, and exhilarating science of floriculture, and I thus humbly appeal to you, as a body, to exert yourselves, and not let this useful little monthly manual of floriculture sink into oblivion,

“ Dissolve,
And, like the baseless fabric of a vision,
Leave not a wreck behind.”

Nurserymen, gardeners, amateurs, florists, cottagers, exert yourselves, put your shoulders to the wheel of the great and mighty car of social improvement, and endeavour to let the world see, through the pages of your long-tried friend, the *Midland Florist*, that the year 1857 shall not pass without some real, lasting, and beneficial advancement in the various branches of floral and horticultural science. Show the floral community of this great nation that, notwithstanding all attempts to annihilate and put down the *Midland Florist*, it can, must, and shall live. Yes, show the world that the mantle of Elijah has not fallen upon the individual who prophesied its final close with December, 1856. Let it be seen that it can rise into greatness, which it most assuredly will do, by your kind help and co-operation.

Proprietors may be liberal, editors may exert every faculty, a few friends may write article after article, but it is to you, the floricultural public, that a work like this must look, to be carried out successfully; and will you allow the liberal offer of its new proprietor to pass unheeded, and for ever close to your use and interests the only independent means left you of recording your humble experiments, asserting your rights, and reporting the progressive development of science? I think I hear you respond in the negative, with a No! whose re-echoing, undying sounds, reach from the Land's End to John o'Groat's.

Amateurs of the United Kingdom, you are in no wise a class of men without industry, talent, and enterprize, and will you sit idly by, and allow the march of intellect to flow on unheeded? Will you sacrifice your interests to a few aristocrats, whose aim and end are pounds, shillings, and pence? “Every man to his tent, O Israel!” Solicit, canvass, rest not, until you, every one of you, have gained another subscriber to the *Midland Florist*. Let not long-tried friends sink into obscurity.

Think not, though it assumes the name of “Midland,” that it is not equally an advocate of the northern counties, or the more genial south. Yes; ye humble fustian, calico, woollen, or silk weavers of Cheshire, Lancashire, or Yorkshire,—ye workers of clay or moulders of iron of Staffordshire,—ye forgers and grinders of “whittles” of Sheffield,—ye struggling craftsmen of Northampton, whose work is trodden underfoot by the world,—ye oppressed framework-knitters of Derby, Leicester, and Nottingham,—think not that your requests and suggestions will now pass unheeded; your interests, and the interests of all connected with the science, no matter of what country, creed,

or colour, will be most faithfully advocated; therefore do not allow this opportunity to pass without, at least, an effort to establish the *new series* of the *Midland Florist* on a firm and lasting basis, a rock on which the storms of contemporaries and exterminators may lash their spleen in vain.

Remember, it is not merely by units, tens, or twenties that the work can be carried out, it is by hundreds and thousands of subscribers that it will attain the height of its greatest usefulness, and be made the first and most extensively circulated floricultural periodical of the day; and it is on you, the workers in this mighty science, this valuable improvement depends,—not only on you residents in the English counties, but on you persevering and indefatigable cultivators “ayont the border,” or the “Liffey,” and in those secluded but fruitful spots, the Channel Islands; and let me entreat you not to shut yourselves out from this liberal and independent journal, for on you, also, is the great work devolving. Will you withhold your elementary aid, without an honest and determined effort to work out your own and your brothers’ emancipation? Let us unite with one voice, with hand and heart, in one great demonstration of an enlightened age, and assuredly shall we work out our own redemption, and show the world that, even in floriculture, “knowledge is power,” and “union is strength.” Do not allow any one to see that the amateurs of the nineteenth century are mere shuttlecocks, which bigotry, prejudice, and intolerance may knock about as they please. Remember the advice of Jove to the waggoner is equally applicable in your case. Awake, then! help yourselves! and rest assured that, even for floriculture,

“There’s a good time coming”

This will be made manifest by your at once adopting the following maxims:—Let honesty and sobriety be your watchwords, honour and liberality your compass, be faithful to one another, and let your motto be, “do unto others as you would they should do unto you” Thus shall you rise into greatness, and be worthy a place in the scale of nations.

Nurserymen and gardeners, you are well aware that the amateurs of the United Kingdom are the hinges on which your well-being hangs and works, and it will be for you to show your gratitude to your best supporters, by giving the work in question your best and most efficient aid. Your welfare is in a great measure dependant on the improvement of the science, and what can advance the science more than the aid of the press—a liberal and unfettered press—backed by the combined and united efforts of the whole floral community.

In conclusion, Mr. Editor, allow me to have a word with you also. Let me beg of you to at once decline all articles that are likely to throw discredit into the balance, avoid all personal allusions, and let us have what we all wish to see, a respectable and respectably conducted journal, so that, under your control, we may look forward to every succeeding month with anticipations of the highest pleasure. With my best wishes for your ultimate success, and for the spread of general and useful information on the science of floriculture,

I am yours and the public’s humble servant,

AN AMATEUR.

Manchester, December, 1856.

P.S.—If my humble style be acceptable to your readers, I have other papers partly prepared, which shall be forwarded for succeeding numbers, and, in the good faith of its continuance, forward my name for six copies monthly, and say to others “go and do ye likewise.”

Large Gooseberries.

[From the *South Australian Horticulturist*.]

WE lived, when in England, in the very centre of the manufacturing districts, where this fruit is grown to an extraordinary size,—the counties of Nottingham, Derby, Stafford, Leicester, Chester, Lancaster, and York, being pre-eminently famous for their production.

The Gooseberry is to the artizans and weavers of those counties what the Grape, Pine, and Melon are to those who move in a higher class of society, and who are enabled to erect ranges of conservatories and hot-houses for their production. It has been said that the large-sized Lancashire Gooseberries are not of fine flavour; this, however, is a mistake, for, of late years, some very excellent specimens have been originated.

The most successful berry, at the various exhibitions, during 1855, a notice of which we have lately received from England, is a sort called London; and at four shows held at Nottingham and neighbourhood, this variety reached the following heavy weights:—

Crown Inn, Nottingham	25	dwt.	13	grs.
Three Crowns, Nottingham	25	"	21	"
Lenton, near Nottingham	22	"	6	"
New Radford, near Nottingham	24	"	12	"

This sort, however, was grown a few years ago, by Mr. Thomas Gibson, of that town, to the extraordinary weight of thirty-six pennyweights; and it certainly holds its position as the heaviest Gooseberry of any colour.

We make no doubt there are many localities in the hills where this excellent fruit may be grown; and we shall endeavour to procure, from our friends in England, a selection, in order that their merits may be fully tested. We will enumerate a few of the largest and best in each colour:—

YELLOW.—Goldfinder, Catherina (a very favourite sort, heavy and handsome), Lord Raneliffe, Leader, Scarborough, and Railway. These often reach from twenty to twenty-five pennyweights each.

WHITE.—Antagonist, Freedom, Snowdrop, White Eagle, Lord Stanley and King of Trumps.

GREEN.—These are very pretty varieties, being, when ripe, of various shades, from deep olive to pea-green. The best are Thumper, Telegraph, Gretna Green, Rough Green, Victoria, and Sweepstakes.

RED.—London, Companion (a very good variety, and crops heavily), Slaughterman, Wonderful, Lord Middleton, and Lancashire Lad. This last does not grow so large as the preceding, but it would make a valuable sort for the colony, being a handsome hairy berry, bearing very profusely.

J. F. WOOD.

Notes for the Month.

ASPARAGUS.—Where early Asparagus is required, and there is a good stock of plants at command, it may be forced in beds made as directed for Cucumbers. Every one desirous of forcing, should provide a stock of four-year old plants; about five hundred will fill a good-sized three-light frame. Having formed the bed, place at least six inches of earth on the top, and on this lay the roots, as close together as possible, covering them to the depth of five inches, with good light soil. In about ten days, or less, according to the weather, the lights may be placed on the frame, not altogether excluding the external air, which might cause the heat to become too great, and burn the roots. As soon as all fear of this is over, put down the lights at night, but air must be admitted during the day, especially when the buds are showing, to give them colour and prevent their being drawn.—JOSEPH LANNGSDALE, *gardener, Basford Hall.*

CAMELLIA.—This is the month when we have so many complaints of the bloom buds dropping off, just when they should be nicely coming into flower. Many are the opinions as to the cause. I have been for some time a successful cultivator, and therefore venture to make a remark or two on their treatment. At this season, little is to be done, but to give air and pay attention to watering. Amateurs frequently have not the opportunity of attending to their plants daily, and, when they come to examine them, and find some of them dry, without any consideration, take up the watering pan, and give just as much as the pot will hold, thinking, by doing this, that they give the plant what it requires. Now, if the soil in the pot once becomes dry, or if it is saturated with moisture, the plant receives a check, and that is the chief cause of the fall of the buds or bloom. I admit there are some varieties more liable to lose their buds than others, and even with the experienced gardener they frequently fail. Give a regular supply of water,

just sufficient to keep the soil in the pots damp.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling*

CARNATIONS AND PICOTEEES.—Care must be taken to protect the plants from rain or snow. Give all the air possible, to ensure the plants being kept dry and free from mildew, which is very destructive. No more water than just to keep the foliage from drooping should be allowed.—THOS. GIBBONS, *Bramcote*.

CHRYSANTHEMUMS.—Those done flowering, plunge into a sheltered border, open to the sun. If kept under glass during the winter, they will be too forward and weak, when required in spring.—B. COOMBE, *the Gardens, Lenton Hall*.

CINERARIAS.—Many of the early-blooming varieties and seedlings will be coming into flower. All plants intended for specimens should have their shoots regulated by sticks and matting, so that the head of bloom may be perfectly flat. If this is done often, there will be but little trouble in producing a beautifully shaped plant, and it may be done in the same manner as recommended for Pelargoniums. The plants must never be allowed to get dry, or the loss of the best foliage will be the consequence. Keep clean from greenfly. Repot young stock that requires it.—J. DOBSON, *Woodlands Nursery, Isleworth*.

COTTAGE GARDEN.—There is little to do but make preparations for spring. Dig over all vacant ground, and carry manure in readiness. Clip hedges, repair walks, and prune all kinds of fruit trees. Fill up vacancies in the Cabbage beds, and, if not already done, plant out Cauliflowers. Lettuce will require attention and protection. Look for slugs, take off all decayed leaves, and sprinkle with soot or lime. If favourable, sow a few early Peas,—Sangster's No. 1, Early Emperor, Daniel O'Rourke. Champion of England will be more than a fortnight behind the first early, but will produce three times the quantity, saying nothing about quality. If the weather be open, plant the following sorts of Beans:—Taylor's Windsor, Johnson's Wonderful, and Longpod. These are the most profitable varieties. Towards the latter end of the month, a little Radish, Lettuce, and Parsley may be sown.—EDWARD KEYS, *gardener, Hemphill Hall*.

CUCUMBERS.—The cultivation of the Cucumber at an early period of the year is attended with considerable risk and difficulty, especially when grown on dung beds, as the steam and moisture arising from the dung are very liable to damp and injure the plants, more particularly if the weather is unfavourable for admitting air into the frame. When the Cucumber is wanted at an early period, the seed should be sown not later than the end of December, or the beginning of January. Previous to sowing, there should be a one or two-light box or pit prepared, with a thickness of not less than from four to five feet of well-worked and fermented dung, or leaves and dung

mixed; and these should be two or three times turned together, to cause them to ferment, for about a fortnight before they are made up into a bed. The compost will then become what is termed sweetened, and will retain the heat longer than if made up in a more recent state. When the bed is made, the frame and lights should be put on, and kept close shut for two or three days, to assist in drawing up the heat. As soon as the violent heat has subsided, the bed may be moulded over to the depth of three or four inches, and the seed sown in pots, four or five inches in diameter, and the pots plunged in the mould, half way up to the rims. In the course of a few days after the seeds are sown, the seed leaves will begin to make their appearance, and when the plants get about two inches high, it will be time to remove them into other pots, by placing two plants into a pot, and give a gentle watering, with water the same temperature as the bed, to settle the soil about the roots. Much care and attention will be required at this critical season, to prevent the plants from damping off; and the lining round the bed will require frequent turnings and additions of fresh dung, to prevent the heat from declining. The fruiting bed should also be got in readiness, according to the directions before mentioned. When the second rough leaf makes its appearance, it will be time to prepare and soil the bed upon which they are to produce their fruit. The soil should be placed to the depth of eight or ten inches, and formed into round hills, under the middle of each light. The soil in which the Cucumber will grow freely, is one-half good maiden loam, one-fourth leaf mould, and one-fourth good rotten stable manure, which should be well mixed together. As soon as the soil in the hills gets warm, the plants may be placed in their final situation, planting two under each light. They should also have a little water, to settle the soil about the roots.—J. BURTON, *Orton*.

EPACRIS.—This lovely tribe of plants will now begin to repay all past labour. Give plenty of air and a good supply of water, and do not let them want for a little attention.—**ERICAS.**—Some of the early-flowering sorts will now be approaching the blooming state, while others will be comparatively at rest: water accordingly.—H. & J. FRETTINGHAM, *Beeston*.

FLOWER GARDEN.—Choice flowering plants, both in pots and beds, must be carefully protected at this inclement season. Auriculas in pots must be protected from excessive rain, snow, or frost, for, though hardy, occasional protection preserves the plants in strength, and causes them to bloom to greater perfection. All sorts of bulbs, as Crocuses, Hyacinths, Snowdrops, Jonquils, Narcissus, Iris, and the hardy varieties of Gladiolus, must be planted without delay. Many sorts of perennials, such as Dianthus, Stocks, and Wallflowers, will amply repay a little attention. The snail, unless looked after, will be found very

destructive in the Pink beds. Hollyhocks in open borders must have all decayed leaves removed, and it will be found advisable to use a little lime or soot, to destroy the snails, which constantly lurk round the bottom of the stems. This remark will also apply to double Rockets.—T. GIBBONS, *Bramcote*.

FRUIT GARDEN.—This is the proper time to prune and nail wall fruit trees. Pear trees may be pruned and trained, without danger of injury from frost. The branches or shoots must not be shortened, but trained at full length, as far as there is room. Be particular in preserving all the matured fruit spurs. Cut away all the stumps of shortened shoots. These rarely produce anything but a confusion of wood shoots, during the summer, and for this reason, be careful to cut them quite close, bearing in mind to reserve a few young shoots, to fill up vacant places. These shoots will produce fruit spurs the second or third year. Look carefully over the general expansion of Plum and Cherry trees, and where a supply of new wood is necessary, select some of the best placed shoots of last year's growth, to fill up any vacancy or train in between the main branches. In two or three years, they will throw out spurs about an inch in length, which will bear fruit plentifully. Never shorten or stop the young shoots that are left for a supply of bearing wood, nor the bearing branches, if you have room to extend them. Shortening is too much practised among gardeners, thereby preventing the fruitfulness of the trees; for in the place where fruit buds would naturally appear, a quantity of useless wood is formed, which only serves to crowd the trees. Continue to plant all kinds of fruit trees, where required. Proceed with pruning Gooseberries and Currants, planting new trees, and filling up vacancies.—JOHN FROST, *gardener to J. T. Edge, Esq., Strelley Hall*.

FUCHSIAS.—All old plants that are growing may be encouraged by liberal watering and keeping the temperature about fifty-five degrees, occasionally syringing them over head. Those not shifted should be removed at once. Place fresh broken bones over the crocks. When the shoots are two or three inches long, stop them back, to make the plants bushy. Cuttings which were struck in the autumn should be potted off at once into some good soil, and treated like the old plants. Keep them continually in a growing state. A half stove suits them well till the end of March. As the plants get strong, occasional watering with liquid manure will be beneficial. The Fuchsia likes something to feed upon. Put in cuttings as required, in a little heat.—JOHN DOBSON, *Woodlands Nursery, Islenorth*.—This is the season of rest for the old show plants. Neither give them water nor cut them back. Keep in the coolest part of the greenhouse. Young plants, struck at the latter end of the summer, should be kept in a warmer part, to grow them to perfection before blooming.—ROBERT J. BEARD, *Nottingham*.

GREENHOUSE.—Keep the plants clear of decayed flowers and leaves, as they are not only unsightly, but also injurious. Avoid fire heat as much as possible, giving only just sufficient to guard against frost and keep the place dry. Too much heat and a closed house, will produce an abundant crop of greenfly. Only make your fire in the morning, except during frost, giving air at the same time; and when the weather is favourable, give abundance of air, which will make your plants robust and healthy. Wherever the greenfly has made its appearance, give it a dose of tobacco.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling*.—Admit air freely, and get the best draught you can. Prepare compost. When the earth in the pots becomes crusted, stir it up. Exclude damp foggy air, which renders cold injurious. To destroy scale on the leaves, sponge and clean with soft soap. Sustain the temperature, by lighting fires, at about forty-five degrees minimum in the day time, and thirty-five at night. Water sparingly.—B. COOMBE, *the Gardens, Lenton Hall*.

PANSIES.—Carefully look over the plants in the beds, and peg down any shoots that may have been disturbed by the wind or frost. Watch for slugs. Pick off all blooms as they appear. The plants in pots will require attention. Remove all decayed leaves and flowers, give abundance of air at every favourable opportunity, and in frosty weather, a slight protection with mats. The plants will require but little water. Prepare soil and get it under cover, for the final repotting, towards the end of the month.—J. DOBSON, *Woodlands Nursery, Isleworth*.—Now is generally a very quiet time with these plants, but I regret to say, that this year it is not so quiet as would be agreeable. The heads of the plants have been nipped out by most unwelcome visitors, notwithstanding every precaution. Before placing my pots in the frame, I gave the sides a good salting, and it will be found advisable to repeat the dose occasionally. Those in beds must be well looked after, and an occasional sprinkling of quick lime will be of use in getting rid of the snails. Salt, scattered round the beds, will be a great protection. Guard against frost, but remove the protection as the weather becomes milder, as it would then do harm.—E. HURST, *gardener to the Rev. S. R. Hole, Causton Manor*.

PELARGONIUMS.—Attention to tying out all plants that require it is necessary advice, for at the commencement of the month they will begin to grow, and the shoots may be regulated to any required form, if only begun with at the proper time. With plants of two or three years old, commence by tying a piece of twisted bast close under the rim of the pot, then draw down each outside shoot, at a proper distance apart, being careful that the shoot does not break away from the stem. The centre shoots may be regulated by sticks, but avoid as much as possible, pushing the sticks among the roots. By these means

light and air are admitted to the centre of the plants, which is very essential to their health and vigour and the production of equal growth. If this is not done, the shoots become crowded and drawn. After the plants are tied, they should be watered, to settle the mould about the roots which have been disturbed by the sticks. The plants that were stopped back last month, for June flowering, must be kept moderately dry, till the eyes are visible, when they may be well watered. Prepare soil and get it into the house, towards the latter end of this month, for repotting all plants that require this treatment. Have an eye to the greenfly, never let it get the upper hand of you. Remove all decayed and yellow leaves, as soon as they appear. Where early bloom is required, any young plants of certain varieties, that appear to have formed their flower truss, may be gradually brought on in a little heat; but do not attempt to push the May plants, till the season is more advanced. Encourage cleanliness in the house at all times. The growth of such sorts as Carlos, Rosamond, Conqueror, and Harriet, will be much improving this month. Be careful as to watering, give sufficient to moisten the ball of earth throughout. On mild days, give abundance of air, but avoid cold draughts. In damp weather, light a fire occasionally, to dry the house.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PRIMULAS (Double White and Pink Chinese).—In beginning my calendar at this date, I presume that plants intended to bloom in winter have received their final shift about the middle of September, and all bloom buds have been pinched off. They will now be fine stocky plants, coming into bloom. A warm airy greenhouse is the best situation for them, as they are very impatient of damp. In watering, apply it as much as possible round the side of the pot, leaving the heart of the plant dry. Remove all decayed leaves, as they make their appearance. THOMAS NISBETT, *the Gardens, Papplewick Hall.*

RANUNCULUS.—This gem of florists' flowers should now begin to occupy the attention of the florist, and to ensure a good bloom, attend first to the preparation of the beds intended to receive the bulbs. Many rules have been laid down by florists, as to the best compost. Most writers contend for a mixture of well decayed turfy loam, cowdung, and a portion of silver sand. So far so good. I have been very partial to cowdung and have used it in the cultivation of a great variety of flowers, especially in growing Ranunculuses, and I have very often found when I have dug up the cowdung, that it was as dry as though it had been taken from an outhouse. Now I have never found this to be the case with pig manure, and therefore I beg to recommend the following compost. I suppose the garden to be of a sharp sandy nature with a gravelly bottom, the bulb is liable to suffer from drought, but the compost recommended will be found to obviate this, and it is the result

of many experiments. Take a few barrowloads of good old pig manure, and to each load add a barrowful of good leaf mould, one of turfy loam, and a portion of washed sand. I find the Trent sand to be best. This should be well mixed together and repeatedly turned over, until the end of January, at which time take out the soil of the bed where the bulbs are intended to be planted to the depth of ten or twelve inches, and fill up with the compost, to about two inches above the surface, and in the course of a week or ten days it will be ready for planting, for which operation take care to choose a fine dry day. I find this mixture to hold more moisture than when cowdung is used, and I have frequently been disappointed when looking over a collection of Ranunculuses, to find flowers with scarcely any foliage. This I mainly attribute to the planting. I will explain further in the February number.—GEORGE FREARSON, *Ison Green*.

ROSES.—Some of the most delicate kinds must be protected during the frosts.

STOVE.—Let the rule be, at this season, always to keep the plants as much at rest as possible; for if induced to start, the growth will be weakly now, and still more weakly hereafter. Maintain by day a heat of about sixty degrees, and allow it to drop at night to about fifty degrees,—B. COOMBE, *the Gardens, Lenton Hall*.

STRAWBERRIES.—Little can now be done, except destroying the old beds. The old plants should be burnt, not buried, as the ashes will form an excellent top-dressing for the new beds. The best mode of application is by sowing them, at the time of planting. If the plants are buried, they cause mouldiness, which is hurtful to their successors. If intended to plant the same ground again with Strawberries, trenching, with the mixture of a little manure, should be attended to.—WILLIAM JAMES NICHOLSON, *Egglescliffe, near Yarm*.

WINDOW PLANTS must be kept from greenfly, and will require but little water, only as much as will keep them from flagging. Give plenty of air and light. If Geraniums have made five joints, nip out the centre of each shoot. Keep Fuchsias dormant till February.—E. KEYS, *gardener to F. E. Shipley, Esq., Hemphill Hall*.

VINERY.—As the Vine is losing its leaf and the sap is down, it is a good time to prune. If on the one spur system, cut to two eyes; if on rods or the summer shoots, leave from four to six feet, according to strength. Should there be means of getting them out, they should be wintered by exposing them to the open air, but if not, get them down close to the front sashes, that being the coolest part of the house. Sprinkling them occasionally with cold water, to prevent the buds from drying up, acts on the Vines in the same manner as the winter rains.—J HAYTHORN, *Wollaton Gardens*.



FEBRUARY.

Notes on Geraniums.

THE subject of Geraniums having been so little noticed in the pages of the *Midland Florist*, I venture to make a few remarks, which may not be without interest to many of its readers. Being easily managed, the Geranium is cultivated by many persons, but in what a number of instances the flowers are discarded, because the plants are so badly grown. None but those who attend the exhibitions round London can form any idea of the perfection to which this plant is brought, many of the specimens bearing from two to three hundred trusses of expanded flowers at the time they are exhibited; but, in order to be successful in growing them to so great perfection, constant attention is necessary; and although the remarks that I shall make on their cultivation will be merely a repetition of what I have stated elsewhere, they may serve to remind many of your readers. The temperature, during the winter and spring, must be nicely regulated. Careful watering, cleanliness in the plants and house, and many other things, although they may appear trivial, will be well repaid, if attended to. At this season of the year, the plants will require particular attention. Fogged leaves will make their appearance in dull damp weather, and they must be immediately removed. The greenfly will not be backward either, and the pest must be got rid of at any cost. Occasional fumigations will be required, and those who wish to make doubly sure should try the following experiment, which is very simple, and has been proved and acknowledged to be the best means for destroying the greenfly. Procure a quarter of a

pound of tobacco, to which add about two quarts of hot water, and let it remain in a water pot or pail for a day and night; at the same time, get a pound of soft soap, and mix it well with hot water, which may also stand till the following day. Then strain the tobacco water through a fine sieve, a piece of muslin, or anything of that description, well squeezing the tobacco, to get all the strength out; to this add the soft soap and about four gallons of water, well mix the whole together, and it will be ready for use. The plant which is infected may then be immersed in the liquid, with the head downwards, being careful that the mould does not leave the pot, which may be prevented by placing the fingers on the top, as when turning out a plant, previous to potting. I recommend every plant being dipped, whether they have the appearance of being infected or not, as it does not injure the plants, and is certain death to the fly, whether green or black. Repotting, stopping back the shoots of late-flowering plants, and tying out the shoots of others as they grow, must also be attended to. In repotting June flowering plants, I presume the plants were stopped back in December; about the end of January, they must be put into their blooming pots, as they will, by that time, have started at the eyes. A six-inch pot will be large enough for an autumn-struck cutting, while those that were struck in the spring may have a small twenty-four. No water need be given for a day or two, keeping the house warm. All young stock should be in their blooming pots by the second week in February, except those for flowering late in July and August. These may be shifted at the end of March, and stopped back at the same time. Tying out to small neat sticks all shoots that are getting crowded, is very necessary, to give light and air to the middle of the plants, which strengthens the shoots. By the use of sticks and matting, the plants may be made to any required form. Avoid at all times, as much as possible, overcrowding the plants. To those who may wish to grow a few good varieties, I would recommend the following twelve

to start with. Having tried them myself, I am sure they would please all, as they are the best in their class. Selecting from catalogues is not easily done; the colours of many are difficult to describe, and many flowers are much alike as regards their colour, indeed the colours may be described as the same, but when seen on the plants they are quite different. For this reason, all those who are not acquainted with the varieties should leave it in the hands of the nurseryman to whom they send their order, it is to his interest to send the best.

Admirable (Turner).—Rose lower petals, marone blotch on the upper petals, a flower of good shape and quality, substance good, free bloomer, and good habit.

Arctusa (Beck).—Rosy salmon lower petals, with dark spot on the upper petals, good shape, free bloomer, good habit, and fine for exhibition, being very distinct and striking.

Conqueror (Beck).—Crimson scarlet lower petals, rich marone spot on the upper petals, leaving a distinct margin of the ground colour; fine quality, free bloomer, and good habit, which improves very much in the spring. The most distinct variety that has been sent out for some time, there being nothing in its way, or equal to it in colour.

Constancy (Beck).—A flower of fine shape, lower petals rosy crimson, upper petals having a clouded marone blotch, very free bloomer, and of good dwarf habit.

Gem of the West (Fuller).—A very fine white variety, of good quality; fine silvery white, with claret blotch on the upper petals, good form and excellent habit, very free bloomer, indispensable for all purposes.

Governor General (Hoyles).—Bright rose lower petals, with a medium-sized black blotch, light centre, free bloomer, and good habit; a very useful variety.

Lucy (Foster).—A good lilac variety, when grown well; lilac lower petals, with clear white centre; dark upper petals, with margin of lilac; good habit, and free bloomer.

Leah (Beck).—Lower petals pinkish salmon, with a crimson marone blotch on the upper petals, leaving a distinct margin of bright rose. A beautiful clear white centre makes it very striking. Good shape, free bloomer, and good habit.

Meteora (Foster).—Orange scarlet lower petals, upper petals having a rich dark blotch, a very smooth flower and free bloomer, rather hard grower, but at the same time of good habit. Recommended on account of its newness of colour.

Petruchio (Foquett).—A large bold flower, not possessed of the quality, but very attractive. Lower petals crimson, upper petals having a marone spot, very large trusses, strong habit.

Rosamond (Beck).—An old variety, but not yet approached in colour. Warm rosy purple lower petals, with dark blotch in the upper petals, clear white centre, very free bloomer, and good habit, early.

Wonderful (Hoyle).—Deep rose lower petals, shaded with orange, deep velvety marone blotch on the upper petals, with narrow margin of carmine; white centre, free bloomer, good habit.

[To be continued.]

JOHN DOBSON.

Woodlands Nursery, Isleworth.

Protection of Tulips.

THOSE who got their bulbs in at the proper time (the beginning of November), should commence covering their beds. Those not provided with low hoops, &c. will find it answer the purpose equally well to lay bast mats on the beds, until the grass begins to make its appearance above ground, when the beds should be carefully forked over, hoops put down, and netting placed over them. Fine threaded netting, such as is made by Mr. Lymberry and other manufacturers about Nottingham, will be found much superior to the common open fish netting; but besides this, mats should be thrown over every night, at sunset. Rain or fair, frosty or mild, no one can make sure of what night or morning may bring forth. If the morning prove fine and mild, throw off the mats at daybreak; but when frosty and cold, let them remain on till the sun gets out and mellows the air. Some persons say that Tulips receive the most injury about the middle or latter end of April, when the buds are lying in the open grass, at the surface of the soil. Certainly that is a most critical time, and requires every care, but practice has taught me that Tulips receive much injury by frost, long before that period, if not carefully attended from the middle of January. During the time the buds are within an inch or so of breaking through and their making their appearance above ground, which, according to late

seasons, is from the end of January to the beginning of March, and perhaps later, we shall have severe frosty nights, followed perhaps by warm sunny days, and if the beds are left uncovered, the frost may penetrate two, three, or four inches into the soil; so that during the night, the buds are in a mass of ice, and in the daytime are warmed up again. These extremes are certainly most injurious, not only to the blooms, but also to the health of the bulbs, particularly in the offset beds, which, by many growers, are most neglected, although the offsets require double the care of the strong blooming roots; for every one must know well that the smaller the root the more tender it is, and the more nursing it requires to get it up to maturity.

Those of the fancy who are about to raise seedlings, should have their pots and soil in readiness for planting the seeds about the first week in February. Planting, I say, not sowing. Every seed ought to be placed the right way uppermost at the beginning.

J. HEPWORTH.

*Hendries Gardens, Lea Bridge-road,
Leyton, Essex, N.E. London.*

Culture of the Cape Geranium.

YOU were pleased, on your visit here, in February, to admire my Cape Geraniums, and express a wish that I would give you my system of management. I shall commence by stating that I was induced to grow them from a conviction that they would be useful for cut flowers, at a time when most things useful for bouquets are scarce, and most amply did they repay me for my trouble. Not only had I an abundance of bloom, but they were, as you saw, really handsome plants, and at that time (February), I may say, past their best, as they had been blooming for nearly three months.

I have never seen any directions for managing this plant, and I do not think it is half so much grown as it

deserves to be. The general impression is that it is difficult to manage. I have known several instances where it has been given up, and the remark of one person, who made an attempt to grow it in this neighbourhood, will show you that its nature is not understood; hence the mistakes that many fall into. He said, "Well, I have tried it now for two years, and never got a bloom. You see it is from the Cape, and that is very hot and dry, and we, who have no stoves, never have heat enough for it; so I have thrown it away."

Now you will see, from the directions I have given for each month, that it really does not require heat. It certainly will stand forcing a little, but it will flower without it, and that early. You are aware I have only my pit and the conservatory here, and I never use fire except to keep out frost, and occasionally to drive out damp, and with me (I may say) they flourish. My practice may be contrary to the usual method of managing the plant; but, be that as it may, I am satisfied with the results. It is now two years since I commenced growing, and I certainly shall not alter my plans. You are aware that I have both the fibrous and bulbous rooted kinds, and I have found the same treatment do equally well for both, so there will be no necessity to give different directions, as what does for one will do for all the Cape Geraniums. And as, perhaps, you, like myself, will not like to purchase plants, I will commence with cuttings, and these I had given me in

FEBRUARY.—At this time I had a small hotbed, on which I had got up my Cucumber plants, the heat of which was partly exhausted. I made my cuttings the same as I would any other Geranium cuttings, placed round the edges of pots, and covered the whole with a handglass, inside the frame. (The bulbous rooted sorts of course are struck from the roots; at least I had part of the roots to strike mine from.) And as one kind of soil does to strike the plant and grow it, I shall here describe it, and on this in a great measure depends the success or otherwise of the cultivator. I use equal portions of good loam, peat, and leaf mould, with suffi-

cient sand to make the whole very porous. It is useless to attempt to describe the exact quantity of sand required, as so much depends on the peat and loam, whether it be sandy or otherwise. This must be left to the judgment of the cultivator. However I have found that they delight in sand, and the soil, when well mixed, should be rather spongy than otherwise. I kept the bottom heat of the bed up to sixty degrees by linings, but great care must be taken that there is no inside steam. In about three weeks they will be fit to pot off. This will bring us to

MARCH.—Some of the plants will take large, some small sixties, but care must be taken not to over-pot them, that is, put them into pots too large. If you have no more convenient place, they may be returned to the dungbed again, first placing four inches of coalash on the same, to keep them dry at the bottom, and after a few days giving sufficient air to drive off damp. Here they may remain till

APRIL.—The plants will now do to remove to the warm end of the greenhouse, keeping them close to the glass, to prevent their drawing. They will require careful watering, as too much will rot them off at the surface of the soil, and if once allowed to flag for want it is fatal.

MAY.—Some of the plants will require a shift in the early part of this month, using the same soil, and being particular about the drainage. Some recommend charcoal, &c.; it may be good, but I never use it for anything; if a thing does well, I am satisfied. When shifted, place them again in the greenhouse, and keep them close to the glass, treating the same as to water, &c.

JUNE.—This month the plants should have their last growing shift, that is, those not shifted in May should be shifted early this month, as it will be found that towards the end of the month they will begin to show symptoms of going to rest (for they require a season of rest); therefore, towards the end, gradually diminish the quantity of water.

JULY.—The plants will now be at rest, and require

very little attention. It will, however, be found that some will only partially lose their leaves, while others will lose them entirely. I kept my plants always in sight, and never altogether ceased watering them, except such kinds as *Glaucum* and *Grossiflorum*. These, with me, lost all their foliage, and that early; I then kept them in a dry, but cool place. I should here state that old plants require precisely the same treatment as young ones, except that the old plants will go off earlier than the young ones. When they have flowered, their work is done, and they require a longer rest than a young plant that has not exhausted itself in blooming.

AUGUST.—Towards the end of the month, some of the plants will show signs of growth, and they should then be turned out of their pots, the balls carefully rubbed (but not shaken out, as you would another *Geranium*), and repotted in the compost before named, and kept for a fortnight in a close frame or pit.

SEPTEMBER.—This month the plants should all be repotted, as directed last month, and great care must now be taken that they are not over-watered. They should, towards the end of the month, or as soon as they show signs of growth, be again placed in the greenhouse, and the nearer the glass the better, as they are apt to draw if placed too far from the light, and, if drawn, many of them will not be able to support themselves without sticks, which, in my opinion, spoil any plant that can be grown without them.

OCTOBER.—They will now be clothed with healthy green foliage, and the plants themselves, without bloom, with their various shaped leaves, and different habits of growth, are handsome objects, and are sure to strike any one who has not before seen them when well grown. They will only require careful watering, and a greenhouse temperature.

NOVEMBER.—This, the dark month, I have found the most trying in the whole year. The plants will now want careful tending, and, even with this, occasionally one or more will go off. Yellow leaves will be seen, which must immediately be picked off, or they

fall, and wherever they rest or touch will cause decay. I find, during this month, that very little water does, and always give it in the morning, giving also air, to dry any moisture that may hang about the plants.

DECEMBER.—The treatment of the former month will be applicable to this, in a great measure. Towards the end, some of the old plants will be in bloom, especially if kept close and dry, and those who have stoves can of course force them at once; but even in a greenhouse or conservatory, amongst other plants, they will come forward this month.

JANUARY.—This, with me, has hitherto been the height of the blooming season, and I have, at one time, from a dozen plants, cut sixty trusses of bloom. The plants will now require constant watering, and, of course, may be placed anywhere so that they can be seen. They flower well in a warm room, and here are much admired. I have tried liquid manure, but do not think it is to be recommended, unless very weak. In short, the plant requires pure air, and I think does best on pure water.

Many of the plants will keep flowering through February, and even till May. While they are sightly, all they require is care in the watering, and I have found that two seasons is quite enough to flower a plant. It is at its best the second year, and after that it gradually gets worse, at least I have found it so in the collection I have here, which is not extensive, although a good variety.

There may be kinds I do not know, and that would not do with the treatment here laid down. I have only about fourteen sorts, and have found them all flourish alike.

Many have an idea that the plants will not stand the knife, but I cut them into shape as soon as dried off after flowering, of course taking out any shoots that do not break at starting. I also stop them while growing, but not late, as it throws them back, especially such kinds as *Roseum Blandfordianum*, while the bulbous rooted kinds must not be stopped at all. I have here given my practice, and any one who feels inclined to

follow it out, will not only be amply repaid for his trouble, but will find that there is no more difficulty in growing this really beautiful winter flowering plant than there is in growing a fancy Pelargonium.

I do not pretend to compare the Cape with our show, fancy, and French Geraniums or Pelargoniums, but, coming, as it does, at a time when these are not to be had, and taking into consideration its value as a plant for cut flowers, I think it richly deserves a place in every conservatory, and I feel certain, if you follow the directions here given, you will not regret the trouble you have taken with my favourite, the Cape Geranium.

H. DAVIS.

Stonegrove Nurseries, Edgeware.

The New Dahlias of 1856.

NOTHING can be more conducive to the advancement of floriculture than for florists to give lists of the best new varieties. In doing this, they must be careful not to give a flower a wrong character, and only to speak from their own experience. I therefore append a list of the new Dahlias, with my opinion, and their general character.

Lord Palmerston.—Crimson, large bold flower, good petal, fine form, compact centre, very constant, and makes a good back row flower.

Lollipop.—Salmon buff, of fine shape, with plenty of stuff; round shoulder, high centre, and very constant. This has been a favourite with every one growing it, and I think will be in great demand next year.

Duchess of Wellington.—Cream colour. This is another of the right stamp. Good petal, high centre, and well arranged. Must have early plants, as the lady seems rather shy of showing herself in perfection.

Colonel Windham.—Rose, with bronze tip, good petal, high centre, and constant. Was rather small with me, but if it will come large, will be first-rate.

Eclipse.—Purple, a useful flower and constant, good centre, but wants a few more rows of petals to make it first-rate.

Orange Perfection.—My plant of this died as soon as it showed bud, and I find this has been the case with many others. I cannot say anything about it from my own observation, but have been told it is a well formed flower.

Bessie.—Yellow, good form and petals, open in the centre. I have not had a correct bloom all the season. I don't know how Mr. Turner managed to show so many in 1855. Try it again, and grow it in stiff soil, giving little water, and thinning out.

Mrs. Wheeler.—Deep scarlet, good petal, and the right shape. I only got one good bloom all the season, and that not till late, but shall try it again in good rotten dung, give plenty of water, and cut out very little, but must have early plants.

Yellow Beauty.—Useful and constant, but we have others equally good.

Lord Raglan—Buff, good form and constant, rather low in the centre, and not too large an eye.

Princess.—Fine rose, with reflexed petals, beautiful round shoulder, high centre, rather uncertain, but when caught, a grand flower.

Duchess of Cambridge.—White, tipped with carmine, very showy, long in petal, and hard-eyed.

Silver Queen.—Good form and high centre, but too quilly.

Grand Sultan.—Dark marone, good form, but uncertain.

Victory.—Yellow. Will never make a flower for show,—too small, and not enough of it. It ought not to have been sent out at any price.

In fancies I find but little to note. The following are most worthy of remark :—

La Vogue.—Buff, tipped with white, good form, and constant.

Enchantress—Stripe similar to Gloire de Kain, large and bold flower, but must have early plants.

Inimitable Stripe.—This is the best stripe I have seen.

Florence Nightingale.—Light buff, tipped with white, a good useful show flower.

Being at Hammersmith, last season, I called at the Versailles Nursery, and was very kindly shown by Mr. Salter some fine foreigners, and made the following notes of what I considered to be the best. No doubt they will this year appear in that gentleman's catalogue. Amateurs will not be disappointed in any of the following :—

Parpaillot.—Orange, striped with light red, large flower, fine form, and good petals, constant.

Magicien.—Dark purple, tipped with white, very fine, good form, and large.

Pandore.—Claret, extra fine form, good petal, a well arranged flower, large, and, should it become well known, will be one of our great guns in 1857.

Modele.—Light fawn, tipped with white. I cannot say that I altogether liked this flower, but nevertheless it is one I shall grow, being novel.

Hortigen von Brabant.—White, tipped with lilac, good form, and pretty.

Kaiserin von Oestereich.—Lilac, tipped with white, very fine and good.

Parquilla.—Orange buff, striped red and tipped white, very distinct, good petal, and form.

FLORISTAN.

The Chrysanthemum.

[Continued from page 20.]

I HAVE seen plants exhibited in number twelve pots, five feet through, with foliage down to the rims of the pots, and fifty blooms on each plant. By establishing the plants and stopping early, then tying out and spreading the shoots, plunging in the ground, and giving plenty of liquid manure, you get splendid specimens. If you wish to keep up a succession of bloom in the greenhouse, till January, take off cuttings from April to August, put them into six-inch pots, and they will bloom eight to ten inches high and carry a good foliage, if well watered, all through the winter. I mean those put in in August, either large or pompone. They also make capital plants for turning out into borders, for common use,—none better; only mind, when you turn them out, and set free the fibres, by raking out well the matted roots, all round the ball, with a pointed stick.

With your permission, I will now pass on to the pompones, or Lilliputians, which have added much to the good character of the Chrysanthemum, for they are of endless diversity, varying in form and from the size of a sixpenny piece to a halfcrown, are of all shades of colour, and bloom from June till January.

Some of the varieties begin to bloom as early as June, but I cannot say I much like these early sorts, their colour is so bad and they are very short-lived. We have always plenty of summer flowers, far superior; but some of them may be very good for planting in the northern parts of England, where the other sorts will very rarely open.

My way of growing pompones is to divide the old roots, leaving three or four shoots to a plant, plant out in April, in front of borders, stop the latter end of May, tie out well, and not stop later than June, as I have done wrong by so doing, and once lost my season's bloom. Cuttings put in in March will make excellent plants by the latter end of April, and do equally as well as plants taken from the old roots, and flower more freely. You may keep on putting in cuttings till August, they will bloom well in the greenhouse; but those put in the open borders after April, or May at the latest, will not bloom with me. If for the greenhouse, or window decoration, put them into forty-eight pots, in March, stop them as soon and as often as you can till July, shift them into the blooming pots as early as possible, tie out as wide as they will allow, give plenty of water, and keep them out of the hot sun, in July and August; use good strong maiden loam, with rotten dung and leaf mould, and give a little liquid manure occasionally. For show flowers, get your plants well established in the autumn, keep them in a cold frame, begin, if possible, to stop in December, and follow it up as you can till the end of June. Shift into the blooming pots as soon as the plants are strong enough, so that their progress may not be stopped an hour. Let the compost be as good as it can be made. The plants must stand a clear two inches from the earth. Don't spare oyster shells for drainage, plunge the pots three parts down into the ground, in a sunny spot, but not in too hot a place. Bring the shoots down to the rim of the pot. A hoop or wire, three to four feet across, round the pot, is best to keep them well down. Don't let the plants get higher than eight to ten inches


from the pots, which may be managed by continually tying and twisting them about. Guano water or other strong liquid manure must be liberally supplied, only be cautious not to give it too strong, nor touch the foliage with it. Syringe them well every night, and don't neglect tying out, to keep every space regularly filled up. You may thus have a plant, in a ten-inch pot, four feet across, with about a hundred blooms, all of one height, a complete picture, if properly attend to. I will give the names of those that are sure to bloom and are of good habit, in a list with the large ones.

I forgot to mention one thing. Should any of you find it inconvenient to attend to potted plants all the summer, you may take up from your borders, in October, nice bushy plants, by watering them a week before, and lifting with a fork. Put them in pots, in a shady place, for a week, keeping the leaves well sprinkled, to prevent flagging. Then place them where they are required, and carefully attend to watering, for if left an hour without moisture, they will lose their foliage. You must not expect plants taken out of the ground to be like those grown in pots; they do not flower so well, nor retain their foliage so good a colour. This is only a makeshift.

[To be continued]

SAMUEL BROOME.

Temple Gardens.



Double Stocks.

THE mode of cultivating this beautiful tribe of plants I will endeavour to lay before your readers. Few hardy plants are more valuable than the different varieties of Brompton, Queen, and Ten-week Stocks, and at the same time there are few plants upon which there is so much uncertainty. I shall therefore endeavour to point out the surest means of obtaining double flowers, and at the same time show how they should be treated.

Procure, if possible, from some person whom you know has a greater quantity of double stocks than single ones (produced from his seed), a little seed, for by so doing you will save yourself much disappointment.

The cultivation is simple, they merely require to be sown in a rich loamy soil. The Brompton and Queen varieties should be sown twice, about the end of June, and again at the end of July, in a border sheltered from the midday sun. Sow thinly, and on ground somewhat firm and of a good quality, for if the ground be fresh dug, the growth of the plants become too rapid, and they are liable to be destroyed, if the winter be at all severe.

In selecting for transplanting, reject all the very strong growing plants, because they are almost sure to be single, preferring the small stumpy plants, with horizontal fibrous roots, as these in most cases produce double flowers.

The Ten-week Stocks should be sown about the beginning of September, in the same manner as the Brompton, and these will flower in April and May. For a succession, to flower from July to September, Ten-week Stocks may be sown about the middle of March, and by transplanting the smallest plants about the end of May, in rich soil, you have a longer succession of bloom.

In obtaining double flowers, of good colour, much depends on the saving of the seed, for Stocks, as well as all highly domesticated plants, annually reproduced from seed, are very liable to degenerate, and a constant vigilance is required to preserve or improve the race. In selecting the plants from which to save seed, choose those having bright and clear colours, broad petals, dense flower spikes, numerous branches, and dwarf habit. Much also depends on the season, for, if the summer should prove dry and warm, the seed will be much better as regards the production of double flowers, while, if wet, nearly all the flowers will be single, and this in a great measure accounts for the superiority of German seed over that

saved in England. The seed of each colour and kind should be saved at as great a distance as possible, otherwise bad colours are the effect; and the bottom flowers on the spike only should be allowed to produce seed, which is easily effected by pinching off the top.

Some suppose that if a plant bearing single flowers be surrounded with plants bearing double ones, the produce of the seed saved from that plant will be mostly double; but it is my opinion such is not the case, and that the double flowers have little if any effect on those that are single.

JOHN THOMPSON.

Jersey.

Culture of the Ranunculus.

HAVING been requested, by a number of parties who had seen the luxuriance of my bloom of Ranunculuses last season, as well as the extraordinary strength and vigour of the roots, to give an account of the mode of cultivation followed, I have been induced to send the following simple statement to you, in the hope (should you deem it worthy of a place in your pages) that it will not only be acceptable to a number of your readers, who have been deterred from cultivating this most beautiful of all florists' flowers, from the mistaken idea that it is very shy and uncertain in yielding a good bloom, but also that it may not be without interest to amateur growers.

The Ranunculus delights in a rich, deep, heavy loam, and in damp situations, but well drained. It will thrive well, however, under various other conditions, provided a corresponding allowance is made in the cultivation. Thus, while common mixed manure from the stable yard, about half reduced, is perfectly suitable for heavy soils, soils of a light nature would require the manure almost wholly from the cowhouse, as being more retentive of moisture. In low and damp situations, the best

time for planting is as early in February as the weather will admit of; while in dry situations, unless very much exposed, the proper time for planting is about the beginning of November. If, in such situations, the planting be deferred till spring, the fibres of the roots will not have penetrated deep enough into the ground to enable the plants to resist the severe droughts of spring, the consequence of which will inevitably be a failure in the bloom, many not only not showing a single flower bud or knot, but such as do will be unable to bring them to perfection, the blooms being diminutive and sickly, and very short-lived. I am quite aware of the doubt, it may be the absolute incredulity, with which this opinion will be received by some florists; it has nevertheless been proved to be correct. Confident that the failure of the *Ranunculus* in light soils and dry situations was owing to the cause above stated, I endeavoured, a few years ago, to prevail on a number of florists, who had gardens of this description, to give autumn planting a fair trial. Although somewhat apprehensive of the issue, several did so, and in every case the experiment proved successful. Unwilling to recommend to others what I would not risk myself, I also planted a bed in autumn, although my soil and situation decidedly required spring planting. I used the driest bed I had, of course. I found no difference, except the plants coming a week or so earlier into bloom. There were no more deaths in this bed than in the others, although the winter and spring of that year were very trying, the thermometer in the month of March standing often a good many degrees below freezing, while the plants were above ground, without any artificial protection. Some of the parties who joined me in the experiment were so satisfied with the result that they declared they would never plant in spring again, as they had never been able to get a bloom to please them before.

The best time for preparing the beds is in September, when the weather is generally dry; but, should this have been neglected, beds may be efficiently enough

prepared up to the time of planting; but in this case the manure employed would require to be a good deal more reduced than that used in September. The size of bed I prefer is four feet by six. When the soil is strong and the roots large, eight rows in the breadth, and twelve roots in the row, will be quite close enough; but when the soil is not so strong, and the roots inferior in size, the beds will bear ten rows, and fifteen in the row. The size and proportion of the beds is a mere matter of taste, and I mention it only to give a more accurate idea of the quantity of manure employed. To each bed of this size I allow as large a barrowful of the manure already mentioned as a man can wheel. The bed is dug out to the depth of two feet. Where the soil is not so deep, the substratum must be removed to this depth, and as much fresh, good soil procured in its stead. The mould is then returned into the pit, mixing and incorporating the dung with it, to the depth of twenty-three inches, or thereabouts, the remainder being laid on the top of this, to the depth of four inches, quite free from manure. When additional soil is required, as in the case above supposed, it should be laid aside for the top layer. When the plants have been grown on the same spot for several years, it would be also advisable to have the top layer, of four inches, entirely of fresh mould; that from old reduced turf, or taken immediately from under the sod of old pasture, is most suitable. The bed will now be two or three inches above the adjoining surface, but will subside to nearly this level by the time of planting. When about to plant, the mould is scooped off to the depth of two inches, as nearly as possible, the new surface is then raked perfectly smooth and level. The rows are marked along and across the bed with a thin rod, pressed down no further than merely to mark the rows distinctly; the roots are then placed on the surface, occasionally pressing down an extra-sized root, and raising an under-sized one by a little mould below, so as to bring the crowns of the plants all to the same level. They are then to be covered to the depth of an inch and a half

above the crowns, taking care not to displace the roots in covering. The depth at which the crowns lie under the surface is a most essential point; if deeper, the plant will exhaust itself in struggling to form the new tubers at the natural place of the stem; if more lightly covered, the plants will suffer from the too powerful action of the sun upon the roots, before they are sufficiently protected by the foliage.

The bed will require no further care till the plants break the ground, when the opening around the stem, caused by the forcing up of the leaves, must be carefully closed up. This is best done by the hand, pressing the soil firmly all around, but where this might be thought to much trouble, as in large collections, treading in with the feet, between the rows and as close to the plant as possible, will be sufficient. In very dry weather, they will require copious watering, especially when they are forming their buds or flower knots, should the drought be severe at this time. When water is given, however, it should be done thoroughly, so as to reach the bottom of the fibres. Superficial waterings are of very little use; indeed, they often do harm, for, by keeping the surface constantly moist under a broiling sun, the temperature must be greatly reduced by the excessive evaporation, which cannot fail to weaken the plant. The foliage of a healthy bed will not require to be shaded, but it is essential that the bloom should, if it is wished to preserve the delicacy and freshness of the colours, or to keep them from shrivelling and falling prematurely under an almost vertical sun. After the bloom is over, the shade should be removed, so as to allow the new tubers to ripen fully, which will be indicated by the decay of the foliage. After this, the roots should be lifted in the first dry weather, thoroughly dried, and stored away in a dry place, where fire is kept so much the better. If this is properly attended to, they will require no more care or attention, till they are again wanted for planting.

I recollect, a number of years ago, hearing an eminent

florist, and first-rate grower of the Tulip, give as his reason for not cultivating the *Ranunculus*, the merits of which, as a florists' flower, he fully admitted, that it was such a shy flower, that he could not calculate on a good bloom above once in three or four years.

Were a proper mode of cultivation, however, adopted, suiting the culture to the various conditions under which it is grown, namely, soil and situation, we should hear no more complaints of this sort, while this beautiful flower would speedily be rescued from the neglect into which it has undeservedly fallen on this account, and assume that place in the rank of florists' flowers which it is so well entitled to occupy—from the very moderate expense at which an excellent assortment can now be had—from the extraordinary beauty and symmetry of its form, the vast variety and brilliancy of its colours, the exquisite delicacy of its tints, to which may be added, the very delicate fragrance of many of its sorts—from the great mass of blooms it yields within a very small space, from the length of time it continues to flower, bloom succeeding bloom, for about four weeks, and lastly, from the very little trouble it occasions the florist, whether in the ground or out of it.

JAMES REID.


Brucefield, Dunfermline.

THE PRACTICAL MANAGEMENT AND

Cultivation of a Pod of Tulip Seed,

WITH THE RESULTS.

IN the year 1848, a fine flamed bybløemen Tulip broke from a short cupped, and remarkably clean breeder, name, unknown, but supposed to be a Maid of Orleans of the finest strain. This splendid flower was impregnated with the most pure, and perfect feathered rose I had upon my bed. It was then covered with a glass,

and perfectly secured from any chance impregnation by bees. The seed pod was gathered as soon as the stem had ceased to convey nourishment to the seed, and placed in a small paper box. In the month of March, the following year, I opened the pod, and examined the seed carefully, by taking each between the finger and thumb, and holding it before the light. I reserved all which had a germ, viz., a small mark at the bottom of the seed, like the following representation.  Having procured a strong wooden box, eighteen inches long, by fourteen in breadth, with four holes at the bottom, each hole being two inches in diameter, I then dug a hole, six inches deeper than the depth of the box, and broader and longer by four inches. At the bottom of the hole, a brick was laid at each end; and having put the box on the bricks, so as to leave a hollow space under it for drainage, I then filled up the vacant places at the outsides and ends of the box with ashes, to keep out worms, &c. Having placed a quantity of broken crocks at the bottom of the box, to the depth of two inches to complete the drainage, it was filled with rich pulverized hazel soil. Each Tulip seed was then gently pressed into the soil one eighth of an inch. A sprinkling of river sand was then added, making the surface quite smooth and even. The seed was thus planted half an inch below the surface. The box, which was placed about a yard from a hedge, on a south border, which had the morning and evening sun upon it, was protected with a net work of strong thread, to keep off cats, dogs, poultry, birds, &c. The box was kept free from weeds, and examined after heavy rain, in order to replace any seeds which might be washed to the surface. In dry weather, after frosty nights had disappeared, I gave the seed a gentle watering. Seedlings began to appear in June, which I did not remove until July the following year; when I took up one hundred and seventy-three bulbs, raised from the above single pod of seed, and planted them in October, two inches deep, on a warm border, protecting them from sharp frosts during winter. I again took

them up the following year in July, and found a dropper or two, (or sinkers as they are called by some florists), attached to each bulb by a fine white fibre. The droppers were found sometimes four or five inches below the seedling bulb, and were generally larger than the mother bulb. The increase was more than doubled every year, by droppers only, until the bulbs produced flowers, when increase was obtained from offsets. Hundreds of bulbs are lost annually by inexperienced raisers of Tulips, who are not aware, that fine bulbs are to be found four inches below the parent bulb, attached to each other by fine white fibres. The whole of the above seedlings bloomed when five years old, some in the fourth year. It is a remarkable fact, that only two bizarre breeders were raised, the rest being byblœmens and roses. I never saw a finer, or more pure bloom; nearly all were perfectly clean, and of fine form, so that I have obtained two important points, viz., purity, and shape. The flower that broke first, was a superb byblœmen, with an intense black feather, which has already taken first-class prizes; and others have since broken, equally good, if not superior. I must further observe, that only two flowers bloomed with blue bases, and scarcely one with pointed leaves; thus proving, that with care, and proper selection of seed pods, a large number of fine formed and pure seedling Tulips may be obtained every year.

Seedling Tulips, having stained stamens, impure bases, long cups, or pointed leaves, should be forked up, and destroyed when in bloom.

SAMUEL CRESWELL.

Radford Vicarage, January 5, 1857.

Fuchsia Etoile du Nord.

THE distinctive and most striking character of this Fuchsia at once attracts the eye, and causes it to be singled out from others immediately on entering the



FUCHSIA ÉTOILE DU NORD.

E. G. HENDERSON & SON.

house. The colour of the corolla is a most intense black violet. The sepals are also novel, and although they would be pronounced faulty by a florist, they reflex well. The points turn inwards towards the corolla. The colour of the sepals is much richer and darker than it is generally found in this tribe. The raiser, Edward Banks, Esq., of Deal, is a very enthusiastic cultivator of the Fuchsia, and for many years has, by hybridizing, obtained improvements in form, habit, &c., a task requiring a great amount of patience and time, more than most people imagine. This gentleman spends hours daily, during the autumn months, and yet obtains very little seed; few remaining on the plant, and often, out of a dozen large and fine pods, not one ripe seed is obtained. This is generally the case with high flowers. Mr. B. blooms about three thousand plants every year, and all from crossed flowers, no chance seed being kept; but few are found worthy of a second trial. He is the raiser of all the best Fuchsias now in cultivation. The improvements in all points of the Fuchsia are truly wonderful, if compared with the plants sent out a few years back.

We are indebted for this description to the Messrs. Henderson, of St. John's Wood; and for the splendid drawing and engraving to Mr. James Andrews, the well known floral delineator.

Fruit Culture.

No. I.

THERE is no subject connected with gardening of so much importance as the cultivation of fruits, now they are become such a necessary of life, and there is perhaps no part of gardening where there are so many failures or disappointments as in the growing of fruits. In writing these papers, I shall attempt to give my own

practical observations, and I would wish other gardeners to enter into the subject with me, as, by uniting our experience, comparing notes, and observing the causes of either success or failure, we may arrive at the correct way of management. The failure of the crops in many parts of the country, for several years past, has caused experiments to be made on various branches of their culture, but while some few have thus tried to aid, there are many places where improvement is quite neglected and out of the question. The great cause of failure has been the late spring frosts, by which the bloom has been destroyed, and consequently the crops lost. To guard against this misfortune, many means may be devised, that would in a great measure ensure a crop, provided they are properly carried out. Perhaps the first of these is the preparation of the borders. A border, to produce a good crop of fruit, should grow good healthy short-jointed wood, well ripened, and not over luxuriant. For Peaches, a border may be dug out three feet deep, and at the bottom of this a foot of good coarse rubble should be placed, then a layer of turves, to keep the soil from running amongst the rubble and choking up the drainage, and then filled up with soil composed of one-half good loam, one-fourth rotten manure, and the remainder road scrapings, river sand, and lime rubbish. In a soil of this description, there would be every chance of the trees succeeding. Deep borders are not required; in fact, they are quite objectionable, for if the roots once get into the subsoil, the trees soon become cankered and unhealthy,—the wood will be sappy and unripe, and quite incapable of withstanding the severity of our winters, in consequence of not being sufficiently hardened. Another point of great importance is the proper selection of sorts to suit the various aspects. The principal points should be *hardiness and general good quality*. In this part of the business, gardeners have a wide field open to them for the production of new varieties; for, although there have been some good additions made of late years to

our fruit trees, there are very few, to what might have been. It is very seldom that we have the pleasure of seeing a collection of seedling fruit trees. There are a few fruits that form an exception; Gooseberries, for instance; but while our Gooseberry growers are trying to improve their favourite fruit in size, they entirely lose sight of the two points of greater importance, namely, flavour and good bearing. Strawberries have certainly received their share of attention lately, with what result may be seen in British Queen, Sir Harry, Filbert, and other fine varieties. All other fruits offer the same advantages to cultivators, and it is not saying too much that every person who has a garden has a chance of benefitting the community at large, by trying to improve our fruits; but all who do try, should be careful in selecting their seed from fruit of the best flavour, produced by healthy and good bearing trees, otherwise their chance of success will be but small. To return to our subject, it is of the greatest consequence that suitable sorts should be selected for every situation, and I would advise those who are unacquainted with fruits, either to apply to some well known grower, describing their walls and aspects, or leave the selection to the nurserymen they order from. Perhaps the point in the cultivation of fruit that has caused the most discussion, and on which the most conflicting evidence has been adduced, is the protection of the trees in spring. Many of the very best gardeners do not agree with protection at all, and, where the gardens are properly constructed and well drained, so as to produce short-jointed well-ripened wood, it certainly is not required. In the majority of cases where protection is adopted, there have been as great failures as where it is not used; for, under protection, the blossom buds do not receive the nourishing influence of the sun, and become bleached or drawn, like a plant grown in the shade, and are consequently much more liable to be injured by frost than if left unprotected. If protection is to be used at all, I should prefer it in the shape of a nine or twelve-inch deal board, to be used as a tem-

porary coping, during the blooming season. This would prevent the trees from getting wet with the rain and then suffering from the night frost. Such a coping has been found to answer the purpose well, in many places, and, in my opinion, is the only protection from which any benefit is to be obtained. Some gardeners protect their trees during the day time, before they come into bloom, to cause them to bloom later, and thus escape the late spring frosts; but I object to this on the same ground as to all protection, namely, that it causes the blossoms to become weak and drawn, and they do not acquire that strength they would possess if they had the full influence of the sun upon them. The consequence is, the organs being weak, are unable to fulfil the functions allotted to them, and become barren and fall off. Another important point is pruning, and thinning the fruit; and here I would caution gardeners not to be too greedy,—not to take too heavy crops, for, by so doing, they impair the health and vigour of their trees for at least the next season, and perhaps for years to come. The trees carrying heavy crops are unable to produce bloom buds for the next year; hence the cause of the failure of many Apple trees every other season. Thinning fruit trees requires much attention. Apples, Pears, &c. ought to be gone over at least once a year. There should not be a bit of superfluous wood left in an Apple or Pear tree, any more than in the choicest Vine or Peach tree. I would strongly advise those who have trees of this description to take a saw and thin them well, not sparing them in the least; for by so doing, they will much improve the appearance of their trees, and cause them to produce much finer fruit, of superior flavour (many of our best fruits are not recognizable at times, through ill culture), and be more likely to ensure a crop; besides which, the crops beneath the trees would receive great benefit, by the more free admission of light and air.

WILLIAM SHIPLEY.

Heywood Gardens, Westbury, Wilts.

Physiology of the Tulip.

A WANT of knowledge of the Tulip and its physiology is apparent. Many essays have been written on the peculiarities of various plants and flowers which do not possess half the intrinsic difficulties of the Tulip, but we are all in darkness and doubt as to the manner in which nature performs her mysterious operations with regard to this flower,—all is conjecture and supposition. There appears something in the Tulip so different to any other flower, and we are at a loss to account for so much that is contrary to what we see in other plants. Sow seed from a rectified Tulip, and the probability is that you have all selfs, not one bearing the slightest resemblance to the parent in the point of marking; and after a lapse of years, a break may take place, which has not the least similarity to the flower that produced the seed. In another instance, there will be exhibited the peculiarities of the variety with which the parent was hybridized, yet in some respects differing. For example, the foliage and the bud may be similar, but the bloom be quite distinct, and partake neither of the variety producing the seed, nor the sort furnishing the pollen. Nor is this the only case of difference. One season you have a finely-marked bloom, perfect in almost every respect, yet the next season it may be quite a different flower, so much so that the best judges would hardly recognize it as the same variety.

This naturally leads to the inquiries how it is that the colouring matter should vary more or less every year, from what cause the difference arises, and from whence the colouring matter is produced? I have never heard of any writer who has ventured upon these mysterious questions, and it is highly important that we should ascertain by actual experiment from whence the colouring matter is infused into the petals. For this purpose, a powerful microscope will be necessary, and a number of bulbs must be planted and examined at stated intervals.

The Tulip (a blooming root) replenishes itself every year, and consists of five skins, whilst a non-blooming root has only four. The one with five skins makes yearly a new bulb. On examination, when taken up, no germ, or the least resemblance to one, is apparent, and therefore the theory of those who assert that everything is formed in embryo, previous to taking up, is completely destroyed. But, if a bulb be cut up in August, it will be seen that some progress has been made, for a small germ, one-eighth part of an inch in circumference, and three-sixteenths long, will be found; proving at once, that although the bulb has been in a box or bag, it has not ceased to grow. About the middle of September, the germ will have increased considerably, measuring nearly three-fourths of an inch long and three-eighths in circumference. The flower bud will also be perfectly formed, and measure nearly a quarter of an inch in length. The skin next to the germ is quite white, and of a woolly texture, produced, no doubt, by the juices being absorbed for the nourishment and new growth of the young bulb; indeed it contains scarcely any moisture, and resembles the pith of the elder or the rush. In October, the whole of the petals and flower stem will be formed, and measure an inch long. From this time till March the plant progresses but little, owing, no doubt, to its making provision, by extending its roots downwards, for the sufficient nourishment, in due time, of the bloom. It will now be found to have exhausted another fold of the skin, and the new bulb will have increased to one-tenth part of the size of a full-grown blooming root, yet no stamens will have made their appearance. Towards the latter end of March, a streak of black will be seen up the centre of the anthers, which, no doubt, is the first formation and concentration of their future supply of colouring matter. After this, the stamens gradually appear and increase. About the middle of April, the beam of flamed flowers shows itself, and the anthers will be found to have attained their natural colour and perfection; yet the stamens will only be one-eighth part of an inch in

length. The bulb is then one inch and an eighth long and two inches in circumference, and grows rapidly when in bloom, and still more rapidly after the bloom has been cut for exhibition, or decayed and been taken off. By this time, the whole five skins will be completely exhausted, and as their office has been fulfilled, in assisting to furnish nutriment to the new bulb, they will now decay.

[To be continued.]

JOHN SLATER.

Cheetham Hill, near Manchester.

Reviews.

JAMES CARTER & CO.'S SPRING CATALOGUE OF SEEDS.—Although it is not our general rule to notice floral catalogues, except by just naming them, the one issued by Messrs. Carter & Co., really demands more than a passing notice. It consists of forty-four large pages, embracing upwards of two thousand varieties, and is one of the most complete catalogues we have seen. It will be found by every amateur a most useful handbook and dictionary, giving the scientific name properly accented, the Linnean class, the Linnean order, the natural order, native country, hardiness, duration, height, and month of flowering. We often regret the blunders in the orthography of gardeners, and if the catalogue were of no further use, it would be found invaluable for the remedy of this evil alone. We have spent several hours in looking through its pages, and can cordially recommend every reader to write for a copy at once, as it contains a great amount of information not to be found elsewhere.

MESSRS. E. G. HENDERSON & SON'S SEED LIST.—Messrs. Henderson's catalogues are generally considered to be amongst the best in the trade, but their seed list for 1857, just published, so far excels any thing of the kind before brought out, that it demands our warmest commendation. A beautiful coloured engraving of the new annual, *Veronica Syriaca*, is a most prominent feature, and, what is still more valuable, "the novelties," receive their share of attention. The lists of annuals and kitchen garden seeds are most complete, and the whole is got up in a form both handsome and convenient.

RENDLE'S PRICE CURRENT AND GARDEN DIRECTORY.—This popular and useful work, we have little doubt, is known to every reader, and therefore needs but little recommendation.

The issue for the present year contains an Almanack—A List of Vegetable Seeds—Roots—A General List of Flower Seeds, by Mr. Robert Errington—German Seeds—Calendar of Operations—The Eschalot Onions, their cultivation—Floriculture—Lettuce Culture throughout the Year—Hamiltonian System of Cultivating the Pine-apple—The Fruit Season of 1856, why a Failure, &c. &c. The work is got up in an unexceptionable manner, and reflects great credit on Messrs. Rendle, who bring out at so moderate price so large a manual for the gardener. The well known publishers of the *Midland Florist*, Messrs. Simpkin, Marshall, & Co., are also the publishers of the *Price Current*, and we have no doubt the work has a world wide circulation.

Queries and Answers.

Can you give me the names of any plants that will strike from the leaf?—Gloxinias, Gesnerias, Hoya carnosa.

My house has a southern aspect and I want a creeper, or creeping shrub, that will look pretty both in summer and winter. It should not be above three feet in height.—All the Ceanothus are pretty, and the hardy varieties, which are evergreen, do well on a wall, keeping a fine green all the winter, and, with flowers and fruit alike handsome, can be trained close and dwarf.

Will you please give, in your next number, directions for making a small hotbed?—AN AMATEUR.—Very few of the operations in a garden are more easy of accomplishment than the making of a hotbed, and yet scarcely any so often attended with failure. Of course I do not allude to professional gardeners, when I speak of failure. Often have I seen, where there were a number of plots let out to amateurs, loads of dung wheeled in smoking and built up directly, three or four feet high and the right dimensions; the box and light put on, the bed earthed, seed sown, and all complete in about three days, and in a week after, the seed all burned up; and all this, arising from ignorance of how the bed should be made, attributed to bad luck. Why, there is as much system in the formation of a hotbed as there is in the building of a house. If the foundation be not sound, in vain is all the rest of the work. When you have a sufficient quantity of hot dung, let it be shaken well apart and laid in a heap; and if, as you are shaking, you find it rather dry, sprinkle it with a little water, to damp it. When the heap has lain three or four days, move it all again, forming the heap in a new place, putting the dung you take off the top in the ground, and by degrees turning the heap as it were upside down. That which is the bottom of the first heap is thrown last of all upon the other, and therefore becomes the top. But in this removal, there must not be large lumps as big as the fork will lift, it must be all shaken lightly out, and sprinkle it with water again, whenever it is too dry, for it will heat too much in places, until it, by repeated turning and shaking out, becomes all alike a nice glowing

heat. Then mark out the ground the size you want your bed, (which should be a foot larger all round than the frame), drive down four stakes at the corners, and then place your dung within the square which they mark out; shake it out well, and if it be at all dry, sprinkle it about every foot thickness. You may pat the dung down with the fork, but, it must not be pressed, and you must lay it as even as you can. If you have dung enough, make it four or five feet high, for it will sink a foot. When you have done it, put on the frame and glass, as near the centre of the dung as possible. It is not absolutely necessary to have a foot width of dung all round the box, but it is the better for it. The heat will come up in a day or two, when you must tilt the back of the light, to let off the steam, and then put three inches thick of good loam all over the surface, inside the frame or box; and when the heat comes through that, your bed is ready for any thing,—Cucumbers, Melons, seeds of all tender subjects in pots—and the heat will be maintained some weeks. If you have Cucumbers or Melons, turn out the ball of earth and stand it in the centre, and place good loam all round it. The best way to manage this is to lay a heap of loam in the centre of each light, the day before you put the plants in; make a hole in the centre, down to the surface of the loam first put in, and close it round the ball, forming, by a ridge all round, a kind of basin, to hold the water that may be given, instead of allowing it to run down the ridge. By thrusting a stick into the dung, so as to reach the centre, and leaving it in, you can tell the temperature of the dung in the main body, by pulling out the stick and feeling the end. If you design to raise the Melons and Cucumbers yourself, you ought to make a bed half the height and half the size, if you have a smaller frame, and sow the seeds in pots. This small hotbed will retain the heat long enough to get your plants up and ready, but your large one need not then be begun until the plants have got two rough leaves. For annuals and seeds in-general, the smaller hotbed will suffice; but for anything that wants a continued heat, the small one will not be sufficient. A portion of leaves may be used with the dung, if the latter be not plentiful. As to the period when a hotbed is to be made, it must depend on what it is wanted for, and when the produce is required. For instance, for raising half hardy and tender seeds for out of doors, it is of no use till February; but for Cucumbers, you must first decide whether you want them at Christmas, or early or late spring. For Melons, which require the sun to ripen them, February is early enough; but Cucumbers could be had every month in the year, if desirable.—GEORGE GLENNY.

Notes for the Month.

ANNUALS.—About the latter end of the month, should the weather prove dry and mild, hardy annuals, such as Candytuft, Nemophila, Collinsia, Convolvulus, and Clarkia may be sown in borders.—J. LANGSDALE, *Basford Hall*.

AZALEA INDICA.—Many of the bloom buds of the earlier varieties will now be swelling, and therefore will require especial care in watering; particularly when the collar of the plant is

not above the surface of the earth. Never give so much water as to allow of it standing on the soil for some time. Young plants not likely to bloom, which require a shift, should be potted at once, giving plenty of drainage, &c.—HENRY BRASSINGTON, *Gardener to Robert Holden, Esq., Nuthall Temple.*

CALCEOLARIAS.—The plants will now begin to grow fast, and require increased attention. Give plenty of air, to keep down greenfly, and fumigate cautiously, as tobacco soon damages the foliage. Water moderately and repot when required.—THOMAS GIBBONS, *Bramcote.*

CAMELLIAS.—Carefully follow up the directions given last month.—J. FRANCE, *Gardener to W. S. Burnside, Esq., Gedling.*

CINERARIAS.—The advice given last month, will apply to this; as keeping the flower stalks pegged and tied out, and the plants clean, will be all that is necessary for the early-blooming plants. Late plants may be shifted into their blooming pots at the end of the month, and stopped back at the same time. They will be found very serviceable and if for exhibition, encourage the growth by giving weak liquid manure, the same as recommended for Geraniums. Give plenty of air to prevent them drawing, and keep them near the glass. Seedlings will begin to be very gay. Keep the plants perfectly clear from greenfly, and mildew. To stop the progress of the latter, dust the part infected with sulphur (prepared black sulphur) through a muslin bag, which should always be near at hand, ready for use at any time. I think the mildew is caused by keeping the plants cold and damp through the winter. I have grown them many years and have never had the least signs of mildew, which I think is owing to their being grown in a greenhouse.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

CUCUMBERS.—The amateur having duly attended to the directions of last month, may proceed as follows. The Cucumber requires a high temperature for its preservation during the winter months, consequently the atmosphere in the frame should not be allowed to fall below seventy degrees, and may be permitted to get as high as eighty or eighty-five by sunheat. The external dung linings should be frequently turned, and fresh dung added to renew the heat. Air should likewise be given at all favourable opportunities; in short, even in the most severe weather a little ought to be given for a few hours daily, it will tend to increase the vigour and health of the plants, as nothing is more pernicious to their growth than being shut up for a length of time without air. When the dung that is applied to the external linings is in a rank state, it will be necessary to leave the lights a little tilted behind, during the night, to allow the steam that may collect to pass away; the ends of the mats used for covering must, however be left over the apertures, otherwise the frosty winds will be liable to injure the plants

When the weather is severe, the pits or beds should be covered early in the afternoon with two or three layers of mats, and not uncovered before nine or ten o'clock in the morning.—T. BURTON, *Oxton Gardens*.

DAHLIAS.—Look over the roots, to see if any of them are decaying. Lose no time in cutting off the decayed part clean, as it will rot the eyes. Make up your mind what quantity you intend to grow, for the sooner the orders are given the better you can be served, as there is always a demand for the best show varieties. In my opinion, the best sorts for show flowers are Admiral Dundas, Annie Rawlings, Amazon, Agincourt, Beauty of the Grove, Dazzle, Duke of Wellington, Empress, Fearless, Fanny Keynes, Louisa Glenny, Lilac King, Lord Bath, Lady Flaxton, M. Dugere, Malvina, Ne plus ultra, Omar Pacha, Old Port, Pre-eminent, Robert Bruce, Richard Cobden, Ruly Queen, Sir J. Franklin, Sir C. Napier, Sir F. Bathurst, Sir R. Whittington, Summit of Perfection.—H. LEGGE, *Edmonton*.

FLOWER GARDEN.—Hyacinths, Anemones, Ranunculuses, &c. should be protected from excessive rain. All top-dressing and forking of borders, not already seen to, should not be delayed. Clear away every thing having the appearance of disorder, as neatness in a flower garden is at all times requisite, and particularly at this time, when the garden has but little attraction. Pruning evergreens and shrubs should at once be completed. Many sorts of hardy deciduous shrubs may still be planted with safety, as they will freely root at this season.—J. LANGSDALE, *Gardener, Basford Hall*.

FRUIT GARDEN.—Any of the operations described in last month's calendar should have immediate attention. Complete the pruning of Apples, Pears, Plums, Cherries, Gooseberries, Currants, and Raspberries, without delay. Prune as soon as possible, Peaches, Nectarines, and Apricots, nailing them before the bloom buds are advanced, or else many will be rubbed off. In pruning, there is a little difference to be observed, they bear fruit on last summer's shoots, and more frequently with the Apricot on natural spurs. Be careful to select the most promising and best situated shoots, in a regular manner, in every part of the tree, making room by cutting out all useless and unnecessary wood, and rejecting long jointed and weak shoots. In pruning, shorten each shoot according to its strength.—J. FROST, *Gardener to J. T. Edge, Esq., Strelley Hall*.

FUCHSIAS.—The plants in a growing state must never be allowed to get dry, and syringing over the foliage, will be beneficial every other morning. Repot any plants that have filled their pots with roots. Autumn-struck plants should by this time be well established in thirty-two size pots. Consult your own taste as to what shape you would like the plants to be. We allow a leading stem to grow to the length of about three

feet six, when we take the top out; the plant then throws out an equally distributed number of shoots, at almost every joint to the top of the pot. As soon as we can make sure of two joints at the bottom, and one at the top, we stop every shoot. By this means we get four shoots at the bottom and two at the top, in the place of one. The plants are thus made bushy, and flower abundantly. The first prize was awarded to our collection of plants, exhibited at the Crystal Palace, in June last, which were treated as stated above. The best and most distinct varieties for this purpose, are the following:—Autocrat, Clio, Glory, Omega (rather small flower, but very new), Perfection, Queen of Hanover, Venus de Medici, Wonderful. Old plants may be treated as recommended for last month.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—Continue to admit all the air possible; repot as required from time to time the various inmates, and see that drainage is free. Stir up the surface earth round the plants, as it tends to give them a greater degree of life. Epacris, Cinerarias, Primulas, &c., will be coming into bloom, and therefore require a regular supply of water. Give little to Ericas, as they will greater part of them still be inactive; but keep them in an airy part of the house. Clear plants from blossoms, as soon as decayed. Exclude damp, by making a fire in the morning, and giving air at the same time. Keep down greenfly, and should mildew appear, apply sulphur.—J. FRANCE, *Gardener to W. S. Burnside, Esq., Gedling.*

KITCHEN AND COTTAGE GARDEN.—Sow Radishes for a succession, a little Lettuce, and Spinach. Cover crops of early Radishes in frosty weather, uncovering again when the weather is more favourable. Prepare some rich ground for Carrots, Parsnips, Beet, Onions, Leeks, &c. These roots grow the largest in light soil. Sow the seed the last week in this month, or the beginning of March. Full crops of Beans (Windsor, Johnson's Wonderful, Long-pod, Hangdowns) and Peas (Champion of England, Hair's Dwarf Marrow; Ne plus ultra, Knight's Marrow) should be sown. Earth up those which are two or three inches up. About the latter end of the month. Parsley, Mustard and Cress, Lettuce, Cauliflowers, and Brussels Sprouts may be sown. A small hotbed will be of great service in the raising of Celery seed. Cauliflowers and Lettuce in frames must have plenty of air.—EDWARD KEYS, *Hempshill Hall.*

LAWNS, &c.—Where the turf is at all unlevel it should be at once lifted, as it is a great eyesore, especially when mown by machine. Pick and sweep lawns, clear them of falling branches, use the roller as the weather permits. Gravel walks should be carefully rolled once or twice a week, to secure a firm smooth surface. Nothing gives greater character than keeping the gravel walks in good order.—E. KEYS, *Gardener to F. E. Shipley, Esq., Hempshill Hall.*

PANSIES.—Those in pots will require abundance of air, at every favourable opportunity. During mild days, proceed with the final repotting, using such soil as is recommended at page 10 of the January number. Beds may be made out of doors, towards the end of this month. Those planted out in the autumn, will be benefitted by a top-dressing. Carefully watch for slugs. Examine the pegs, so that no shoots may be broken by the wind. Seedlings that have been wintered in pans, should be planted out in favourable weather, at the end of the month.—**JOHN DOBSON, Woodlands Nursery, Isleworth.**

POLYANTHUSES, if the weather prove favourable, ought to be looked over carefully, and all decayed leaves taken off. About half an inch of the soil should be carefully removed from the top of the pot, and be replaced with fresh. This should be done before the plants begin to grow or strike fresh fibrous roots.—**J. HEFORTH, Hendries Gardens, Leyton.**—Those grown in pots should be taken out of the frame, the pots well cleaned and examined at the bottom, as slugs frequently lodge just within the drainage hole. Woodlice, spiders, and other insects equally destructive, will be found about the frame, especially where sawdust has been used. Sprinkle fresh soil over the surface and inside the holes, previous to replacing the pots. Remove all decayed foliage, and, with a small brush, carefully go over the underside of the healthy portion, which, on close examination, will be found literally covered with greenfly, so small as to be almost imperceptible. With a table fork, take out the soil to the depth of two inches, and fill up with rich compost, thoroughly dry, to within half an inch of the top of the pot. We are just entering upon the most critical period of the whole year, and great care will be required to protect the plants from cutting winds and frost. Those in the beds and borders should be cleaned as above recommended. The beds should be forked over, the plants carefully pressed down with the finger and thumb, fresh soil added, and the surface covered with clean dry moss. Seedlings that are not of sufficient strength for blooming, should be taken up with balls of earth, and transplanted in rich finely-screened compost.—**SAMUEL HAMMOND, Radford.**

RANUNCULUS.—When planting, I use three deal rods, four feet long, two of them marked every six inches, for the distance between the rows, and the third every four inches, the distance between the tubers. I place the two marked for the rows on each side of the bed, and the third across, taking care that the rows are straight; then, with a sharp trowel, carefully lift the soil out of the trench, to the depth of an inch, and press the tuber closely down, allowing an inch between the crown and the surface of the bed. Strew a little lime over the bed, to prevent the worms lifting the tubers. Should a sharp frost occur, cover with mats, or a coating of very old manure from a

frame, which must be carefully removed as soon as the grass begins to lift the soil. A piece of thick warp net is a good covering for night, until safe from frost.—GEORGE FREARSON, *Ison Green.*

STRAWBERRIES.—Continue operations by destroying old beds, as recommended last month; and where new ones are to be made the ground should be got ready, by deep digging or trenching, mixing the manure as the work proceeds. For light soils, cow or pig dung, for strong soils stable manure, or night soil with the ashes, are most suitable. If the latter be new, it ought to be used sparingly, and kept well up to the top, so as the frost may act on it. A little gas tar sprinkled over the newly dug ground prevents wire worms and other insects being troublesome. Do not remove the decayed foliage from old beds, but give them a good top-dressing all over, so as to cover the old leaves, which make a good natural stimulant. This top-dressing upon the old leaves prevents the too rapid evaporation of moisture in summer, which is a great point in Strawberry growing. The best top-dressing is the cleanings of ponds and ditches, after lying a year, and being turned two or three times; but any other such strong fresh soil will do.—WILLIAM JAMES NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*

VERBENAS.—Stock plants that have survived the winter should now be introduced into a gentle heat, giving them but little water till they commence growing. As soon as the cuttings are ready to take off, choose pots according to the number of the cuttings, and plant each variety in a separate pot, which saves confusion. The best plan is to fill the pots with one-third drainage, and the compost, pressing the whole firmly down, leaving about an inch of space to be filled up with sand. In this plant the cuttings, give a good watering, and place the pots in a little bottom heat, and keep close for a few days. As soon as struck, pinch out the centre, repot singly, place close to the glass, and give plenty of air.—SAMUEL HUMPHERY, *Gardener to T. B. Charlton, Esq., Chilwell Hall.*

VINERY.—Those in a strong healthy state may be started without danger. Commence with very gentle forcing at first. Bend the top of the Vine down, if allowed to remain straight the lower branches will break weakly.—J. HAYTHORN, *Wollaton.*

WINDOW PLANTS.—Geraniums, Calceolarias, Fuchsias, &c., which have not been potted since autumn, should at once be shifted into pots a size larger; giving plenty of drainage. Make the soil firm. Little attention is required, but regularity in watering must be adopted, for allowing the soil to get dry, watering too much, or letting the water remain in the saucer, is alike injurious. Keep the plants close to the glass, giving them a turn once or twice a week.—JOHN BEARDMORE, *Nuthall.*



MARCH.

A DESCRIPTIVE

List of Twenty-one Varieties of Potatoes.

BY JOHN WALKER, WINTON, MANCHESTER.

SINCE detailing my experiments, and recommending several varieties, as mentioned in vol. 2, page 89, of the *Midland Florist*, many new and improved varieties have been originated from seed, amongst which I have been more fortunate than there stated, and have many choice varieties, of a few of which I will endeavour to give a faithful outline, and also of others that I consider merit more extensive cultivation.

I will not attempt to dictate to any man how or when he should plant, but leave him to follow out his own plans, and suit his own convenience, contenting myself by simply remarking that I am more fully convinced than ever of the truth of the theory laid down at page 4, vol. 2. Having traced the fine fibrous roots of some Potatoes to thirty-eight inches from the old tuber, I would ask those who advocate the old system of placing the manure directly in contact with the Potato at planting, for what use it is intended—if simply for food, or a stimulant for the new crop, why place it on or under the old tuber? Most parties are well aware that nothing will strike so well in manure as in soil; then again, as soon as the Potato commences growing, the young fibres strike out horizontally in search of food. It is on this conviction that I ground my opinion, that the manure is better more generally incorporated with the soil, and produces better results; therefore, without further preface, I will

proceed with my list, begging first to be permitted to inform your numerous readers that I am not merely recording the experiments or knowledge of one season, having devoted much attention to the culture of this esculent for the last twenty-five years, and cultivated more than five hundred varieties. The last season, I had one hundred and ten varieties, including seedlings, and have now above fifty for the coming season. I have walked scores of miles in quest of anything really good, and tried some scores of experiments, for a few of which see vol. 3, p. 6. Thus, I should be somewhat of a judge as to the properties of a really good Potato.

Prince Regent, with its many *aliases*, is yet a really good Potato, and generally commands the highest price in our market. This is so well known that it requires no describing.

Soden's Early Oxford.—One of the nicest round early sorts, not long in the top, of good quality, prolific, moderately early. It does not grow large, but is fit for table early.

Jackson's Improved Albion.—A very distinct second-early kidney, of good quality, with me free from disease, very white, and prolific. It is worthy of extensive cultivation where kidneys command a sale.

Myatt's Seedling Kidney.—Another new and distinct sort, of fine form, rather inclined to be yellow, a fine sort for exhibition, prolific, and of good quality.

Lapstone Kidney.—A fine second-early sort, of first-rate quality, but very susceptible of disease. It is of fine form, with a light bright green foliage, and a fine variety for exhibition, on light rich soils.

Lee's Napoleon.—A later kind of kidney, of good quality, very prolific, and not subject to the disease; rather yellow in appearance when brought to table, very mealy, and of fine flavour.

Flukes.—This is comparatively new, and classes as a first-rate sort, from which opinion I beg to differ. It is a coarse variety, not calculated for general cultivation. On wet or heavy soils it is not good, while on light rich soils it flourishes abundantly, and in such situations is of good quality, yet apt to be coarse. It grows large, of a long flat kidney shape, free from deep eyes, keeps well, moderate tops, bearing bunches of white flowers. Some friends, writing about this, say it is synonymous with the Lapstone, than which nothing can be more erroneous. It is moderately free from disease, and, where the soil suits, is a good marketable Potato. Some say it will not bear cutting for planting; I have tried it the two last seasons, with little perceptible difference; yet I recommend the planting

of the smaller ones whole, for, being scantily supplied with eyes, causes immense waste in cutting, unless the crown only be set, and the remainder used for cooking.

Clogsole.—A seedling from the above, raised by Mr. Aldred, of Irlams o'th' Height, near Manchester, a decided improvement on the Flukes, and better calculated for general cultivation.

Hive Kidney.—By the same raiser, from Flukes, and something in the same shape as the parent, very prolific, and of finer quality.

Lancashire Lad.—Likewise raised by the same grower. A rather unsightly variety, with deep eyes, round, of a dull purplish red colour; possesses a peculiarity of flavour not calculated to please the public. I have heard it stated to be free from disease; with me, in 1855, it was much diseased. It is prolific, but I cannot class it as a desirable sort.

Golden Eagle.—Raised at Chorley, a round variety, heavily marked with red, one of the handsomest round Potatoes for exhibition, on light soils of excellent quality, having a rather yellow appearance when brought to table. I have no hesitation in recommending this as a first-class variety, and one that will command a sale in any market, and grows a fair average size.

Arrowsmith's Seedling.—Raised at Astley, in this county, and now extensively cultivated. A very nice sort, much like the preceding, but cannot compete with it. This is, however, a good cropper, and, like the former, keeps well, and is not subject to disease.

May's Rosebud.—A seedling raised at Orford, near Warrington, from the Cheshire Pinkeye, which variety it resembles in colour, but is of improved form; short tops, and generally free from disease.

Pollitt's Seedling.—A fine red variety, also raised in the neighbourhood of Warrington, and very highly praised for its general good properties and being free from disease. I have not grown this myself, yet, and therefore will not say more about it.

• **Walker's Favourite.**—A seedling from Cheshire Pinkeye, and a great improvement on that favourite sort, both in appearance and quality. It is beautifully white when brought to table, of a fine-grained texture, the flavour second to none, oblong in form, white, with purple eyes, which are not deep; fit for exhibition, the stock low, its only drawback being that it is susceptible of the disease.

Walker's Wintonian.—A nice, white, round variety, from Napoleon, not deep eyes, prolific, of good quality, fit for exhibition, distinct, with a bright dark green foliage, and of nice habit, and keeps well.

Walker's Alma Kidney.—A seedling, also from Napoleon, and an improvement in form and quality, being white, equally prolific, and not diseased.

Walker's Redan Kidney.—From the same sowing, distinct, very prolific, good quality, and desirable, being free from disease so far.

Walker's Malakoff.—A seedling from Flukes, which it resembles, with an improvement in form and quality, and being six weeks earlier than the parent, gives it a decided claim to the notice of all persons interested in this vegetable. It is particularly adapted for exhibiting, with a short top, very prolific, and is considered by all who have seen it to be really a first-class variety.

Walker's Goth.—Another seedling from Flukes, of good properties, prolific, of oblong form, but not flat, quite distinct, and of good quality; white, and not deep eyes.

Walker's Vandal.—Another distinct and very prolific seedling from Flukes, kidney shaped, but not flat, like the parent, of fine quality, with rather long upright tops, bearing bunches of flowers, and succeeded by a quantity of crabs or knobs, which should generally be removed; this is also as yet free from disease.

I have about twenty-five more varieties of selected seedlings, of many of which I have the most sanguine hopes, and intend testing more closely the coming season. I will then give descriptive particulars of their qualities, &c., and in the interim will be glad to hear from any one warmly interested in their culture.

Notes on Geraniums.

[Continued from page 42.]

HAVING taken a few notes at the London exhibitions, of many of the new varieties sent out for the first time in the autumn of 1856, and those to come out in the spring, 1857, I introduce them for the benefit of those who may not have seen them. I will take the best of them first, alphabetically, which will prevent me showing any preference, although I find that with this arrangement I am obliged to commence in favour of my favourite,

Emperor (Beck).—Colour beautiful crimson. Perhaps if I take the words of the raiser, I shall be conveying a just idea of the value of this flower:—"I consider this in all respects the best flower I ever raised." It is certainly a very fine variety, and will continue a great favourite for many years.

Eclipse (Dobson).—This is a bold, striking flower, an improvement on Carlos, having larger flowers and truss, with a better habit; lower petals deep rose, with a large, pure white eye; upper petals deep marone, with even margin of rose.

Florence (Beck).—A distinct variety, in the way of Rosalind (Beck), an old variety, much admired, but from its being a bad bloomer, it has almost disappeared from our collections. It is a colour very much wanted, distinct rosy salmon, upper petals black, margined with salmon, fine shape, very stiff, and opens, as all Geraniums should, without dressing; good habit, and profuse bloomer, so far as I have observed.

General Williams (Turner).—Lower petals deep crimson, painted; upper petals very dark marone, leaving a distinct crimson margin; to all appearance of good habit, and fine bloomer, distinct and striking. I prefer this variety to Hoyle's Marvellous, which is in the same way.

Matilda (Hoyle).—Warm shaded pink lower petals; upper petals having a blotch of marone, tinged with purple and orange; good quality and fine shape; will prove an attractive variety.

Marvellous (Hoyle).—A large bold variety; dark velvety marone blotch on the upper petals; lower petals painted deep crimson.

Prince of Prussia (Turner).—A striking variety in colour, being crimson scarlet; a large flower, after the style of Petruchio; good shape, and appears a good bloomer, of strong vigorous habit.

Rubens (Beck).—Lower petals bright crimson, upper petals having a deep marone blotch, which shades off to the edge with orange scarlet; of fine shape, good bloomer, and will become a very desirable variety, being distinct.

Selim (Beck).—A flower very novel in colour, resembling that very distinct variety Tyrian Prince, raised some time ago by Mr. Beck, but which has been discarded from our collections for some time, having been such a bad bloomer. In the new variety we have an abundant bloomer; lower petals crimson purple, with rich deep veins; upper petals black, with a narrow margin of fiery crimson; good shape and habit; fine early flower.

Symmetry (Foster).—Crimson scarlet lower petals, with dark marone blotch on the upper petals, having a distinct margin of the ground colour; of good shape and quality.

Having thus far glanced at the best, in my opinion, I will not venture to say that other varieties may not equal those enumerated. Viola appears a favourite with many, for what reason I am at a loss to conceive. King of Scarlets will prove a useful variety, if it will only keep its colour in the greenhouse. Amethyst is a novel

colour, but rather small; it is a flower of very fine quality. *Ardens* is a strong-growing variety, with brilliant crimson flowers, of good shape. Miss Foster has novelty of colour, but I think it is inclined to sport. Among spotted varieties, *Alexander* (Dobson), *Arab* (Dobson), and *Spotted Gem* (Turner), are the most striking. The first-named variety is a large flower, lower petals carmine, with brownish tinge; a dark spot on each, shading off to the ground colour, gives it much richness; upper petals rich glossy marone, with a distinct margin of carmine; a very striking variety; the habit is good, and an abundant bloomer. *Arab* is a distinct and striking variety, lower petals novel rose, with deep marone spot on each; upper petals rich marone, shading off to deep rose; free bloomer. *Spotted Gem* is a good variety, after the style of *Sanspareil*, of good form and substance; colour soft rosy lilac, with very distinct maroon spots on each petal; free bloomer, of good habit. *Conspicuum* (Turner), very free-flowering variety, similar to *Spotted Gem*. Mr. Beck (Turner) is a flower of first-rate quality; pale rose lower petals, with a marone spot on each; upper petals having a large blotch of the same colour. *Fancy Geraniums* I will reserve for another article; in the meantime I shall be glad if others would come forward and give us the benefit of their opinions of the new flowers.

JOHN DOBSON.

Woodlands Nursery, Islsworth.

Notes on Gooseberry-showing.

BY THE AUTHOR OF THE "GOOSEBERRY GROWERS' REGISTER."

WE cannot correctly ascertain the origin of Gooseberry-showing, but our Lancashire friends, organized the system of showing, which has continued to the present day. In 1803, Thomas and Joseph Kenyon, of Prestwich, and Thomas Heywood, of Middleton, published a book of

thirty-one pages, entitled "An Account of the Gooseberry Shows that took place in Lancashire, in the year 1803." This was printed by J. Hartley, Rochdale, and contains the following shows, held in Lancashire and Cheshire, viz. :—Rochdale, Kelsal Moor, Pendleton, Blackley, Stockport, Chadwick Lane, Astley, Ashton-under-Line, Turnton, Middleton, Eccles, Chowbent, Bullock Smithy, Newton Heath, Prestwich, Whitefield, Irlam, Knot Lane, Ringley, Farnworth, Rooden Lane, Radcliffe Bridge, Clifton, Bury, Lees, Heywood, and Lane End. The best five in each class are as follow :—

REDS.		GREEN.	
	dwts.grs.		*dwts.grs.
Fisher	21 1	Lord Nelson.....	18 0
Sportsman	20 5½	Chisel	16 9½
Crown Bob	19 17	Duke of Bedford.....	15 18
Conqueror	18 18	Mask	15 17
King	18 0	Glory of Radcliff.....	15 15
YELLOW.		WHITE.	
	dwts.grs.		dwts.grs.
Sovereign	19 13	Whitesmith	17 1
Purse.....	16 22	Apollo	16 19
Sceptre	16 18	Muffin	15 23
Credus	16 15	Capt. Berry	15 20
Union	15 2	Sporting Lady.....	13 11

The publishers of this book had for several years written others, containing an account of shows that had taken place. These, we believe, are still extant, although we have been unable to procure copies. Beyond this, all appears blank, with the exception of traditionary legends handed down by old growers. Among them there is one related by John Moore, of Tongue, Middleton, who was presented, in 1846, with a silver snuff-box, for having honourably subscribed to Gooseberry shows for fifty years, without once being a defaulter. The first show he could recollect, was held in Middleton, about the year 1793, and the first prize was won by a neighbour, with a variety called "Tup," weighing nine dwts. This was considered quite a prodigy, and, to use the words of the old man, "people came from far and near to see it growing; his neighbours believing the stalk to be quite inadequate to support such a monster, and kindly assisted him in

weaving a cotton net, fearing it might fall for want of support."

The book published in 1804, has thirty-one pages, and contains twenty-three shows. The best berries in each class are,

RED.		GREEN.	
	dwts.grs.		dwts.grs.
Crown Bob	18 22	Langley.....	17 7
Sportsman	18 12	Chisel	16 9
Conqueror.....	18 11	Glory of Radcliff.....	16 7
YELLOW.		WHITE.	
	dwts.grs.		dwts.grs.
Sovereign	17 13	Whitesmith	16 22
Purse.....	15 10	Fuddler.....	16 3
Credus	15 8	Bright Venus	14 20

The book published in 1805, consists of thirty-five pages, and contains thirty-three shows. The best berries in each class being,

RED.		GREEN.	
	dwts.grs.		dwts.grs.
Conqueror	21 0	Glory of Radcliff.....	15 5
Crown Bob	20 6	Lord Nelson.....	14 13
Sportsman	18 15	Jingling Johnny	14 5
YELLOW.		WHITE.	
	dwts.grs.		dwts.grs.
Credus	16 20	Consell's White Seedling	17 1½
Gourd	16 16	Whitesmith	16 0
Purse.....	16 17	Northern Hero.....	15 12

In 1806, the book had fifty-seven pages, and contained forty-four shows. The best berries were,

RED.		GREEN.	
	dwts.grs.		dwts.grs.
Crown Bob	21 17	Glory of Radcliff.....	14 16
Sportsman	19 6	Heart of Oak	14 16
Conqueror.....	16 21	Lord Nelson.....	13 21
YELLOW.		WHITE.	
	dwts.grs.		dwts.grs.
Ville de Paris	16 12	Whitesmith	15 4
Ranger	15 11	Northern Hero.....	15 1
Sovereign	14 12	Fuddler.....	14 7

The book for 1807 has fifty-five pages, and for the first time contains tables, showing the number of prizes won by each variety; also an index. The heaviest berry in each class was,

	dwts.grs.
RED—Crown Bob (W. Williamson)	24 14
YELLOW—Sc. ptre (James Scholes).....	18 13

	dwts.grs.
GREEN—Glory of Radcliff (W. Sandford).....	17 7
WHITE—Northern Hero (John Rothwell).....	17 15

The book for 1808 has sixty-four pages, and index, but no tables, and is extended to Yorkshire and Staffordshire. The heaviest berries were,

RED.	dwts.grs.	GREEN.	dwts.grs.
Crown Bob	25 4	Lord Nelson.....	18 17
Sportsman	22 6	Glory of Radcliff.....	18 6
Conqueror.....	18 17	Fairplay	18 5
YELLOW.	dwts.grs.	WHITE.	dwts.grs.
Venerable.....	20 16	Northern Hero	20 8
Delight	19 13	Volunteer.....	18 18
Ville de Paris	19 0	Fuddler.....	17 11

The book of 1809, printed by J. Dowson, of Stockport, has seventy pages, index, and tables, showing the number of prizes won by each variety. The heaviest berries in each class were,

	dwts.grs.
RED—Sportsman (W. Williamson).....	18 23½
YELLOW—Delight (W. Williamson)	17 10
GREEN—Laurel (R. Grundy)	14 7
WHITE—Fuddler (W. Harpham)	13 15

The book for 1810, published by Robert Fidler, of Bullock Smithy, Cheshire, and printed by J. Dowson, has eighty-one pages, and the heaviest berries are,

	dwts.grs.
RED—Crown Bob (Fletcher)	21 7
YELLOW—Delight (S. Ogden)	19 22½
GREEN—Chisel (Robt. Mc.Laland)	17 2
WHITE—Great Britain (A. Howarth)	16 21

The book for 1811 has eighty-four pages, and is printed by R. and W. Dean, 33, Market Street Lane, Manchester, and includes the counties of Nottingham and Derby. The heaviest berries being,

	dwts.grs.
RED—Crown Bob (J. Cleworth)	23 12½
YELLOW—Delight (Gird)	20 22
GREEN—Ocean (J. Holden).....	22 5
WHITE—White Rock (J. Banks)	18 4

[To be continued.]

CHARLES LEICESTER.

Macclesfield.

Crossing of the Auricula and Polyanthus.

MR. EDITOR,—I have with the utmost care perused your January and February numbers, both of which I assure you have afforded me much pleasure, and really the improvement made, speaks aloud for itself. Yea, it appears to me to have been hybridized or crossed by some high blood or pollen of high standard breed ; yes, the progeny I dare say will be thought by every one to be a great advance on the parent : and really when I examine the pages of the *Gossip*, and there find so many chapters devoted to such useless stuff as Rosa and her Yellow Rose—Mary M'E. on Pinks and Persons—John Cliff's Afternoon Excursion—A. S. H.—Nomenclature of Roses—Dahl and Wide-awake—Alphonse De Lamartine—Angelina Grainger,—and such like, all devoid of that sound information so necessary and acceptable to all who love flowers for their own sake, well may I exclaim “how is the mighty fallen !” But, sir, to return to my subject of crossing, in speaking about the very silly things in the *Gossip*, I do it not to cross or vex their majesties ; no, but only as a hint that such nonsense is far from being acceptable or relished in this part of the world. Sandy likes something edifying, and no fictitious stuff. I really advise the *Gossip* to cross. Look around and every one will be astonished to see the great and mighty improvement made in the breed of cattle, both in England and Scotland within these few years, and that by crossing of the different races ; and the very similar means we may all use, so as to produce improvement in the various races of flowers and plants (I mean only the mere crossing of any two plants of the same family), although I have this season crossed the Auricula with the pollen of the Polyanthus ; and to those who would wish to attempt the cross-breeding of plants, allow me, Mr. Editor, to offer a few suggestions for their guidance. It is an essential element to success that the operator be possessed of indomitable patience,

watchfulness, and perseverance, and that he be provided with a pocket-lens, a pair of fine wire pincers, and various coloured silk threads ; and, presuming that the amateur has the plants all nicely arranged in his stage, and having determined on the subjects on which he is to operate, avoiding all accidents of variable temperatures, of wind, rain, dust, and above all, insects. The plants which are to yield the pollen, and those to bear the seed, should be kept in the same temperature, and whenever the pips are half expanded, with a pair of very thin and sharp pointed scissors cut out all the anthers of the corolla of the pip you intend to bear the seed, as well as the corolla itself and that down as far as the top of the stigma, which, be aware not to injure, or touch with the scissors ; also cut off all the pips of the pollen-bearing flower, except those you are to retain for the fertilizing dust, say two or three pips on each plant. This being done, then there is no fear of that busy insect which is constantly flying about, and which lives exclusively on pollen, if it even touch the pip divested of its flower ; but to guard against all chances, a small bell-glass or tumbler, may be propped over the seed-bearer until the plant containing the pollen is ripe. If, on examination with your lens, you perceive the stigma of the seed-bearer to be in advance of the pollen, then you may cut the flower-stalk of the pollen flower, take it into your room, and place it in a sunny south window, in a vial of luke-warm water, and in a few hours it will be ready for your crossing. If the weather be not sunny, it may be days ere the stigma is in a fit state for fertilization, and this state is indicated in the *Auricula* and *Polyanthus* by a viscous exudation on the summit of the stigma, and generally covering the entire surface of that organ, and in this condition it may remain many days, during which fertilization may be performed, and the period will be longer or shorter as the weather is sunny, damp, or overcast. The amateur, ever watchful, will, with his pocket lens, observe the maturity of the pollen and the condition of the stigma ; in the former to see it has attained its powdery, and the latter its viscous

condition ; with his pincers he will then extract an anther, and by the gentlest touch distribute it very thinly over the summit of the stigma : this being performed, he will mark it by tying round the flower footstalk a small piece of coloured silk thread, which he wishes to indicate the particular plant which bore the pollen, and at the same time tie a bit of the same round the stem of the latter, and at his leisure record in his book as per example :

Freedom + with Prince of Wales—red.
 Ditto + „ Robin Hood—green.
 Ditto + „ Lord Palmerston—yellow.

Now I would not advise more than three pips on each plant, and if properly done, you will have a well-filled pod, and the seed as large as any fine turnip seed. I speak from experience from my last year's produce, which is now all in mother earth. May I be allowed to mention that those plants I left to nature's seeding last summer, did not produce me one pinch of seed ; and amongst all the crossed there was hardly an empty pod. Then

“ Who would ne' cross,
 Who would ne' be in love
 With bonny Maggy Lauder.”

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

The Chrysanthemum.

[Continued from page 52.]

I WILL now suppose you are going to plant out a border of large varieties, to show a good blaze of bloom all at one time, therefore your object will naturally be to have them well arranged for height and colour. Some persons like to mass the colours, and others to mix them; this I leave to your own taste; all I have to do is, to give a description of them, and to leave the other matter to yourselves. As to height of blooming, I cannot be supposed to be very correct, as it varies according to

seasons, the locality they are grown in, and the time of planting, but I will give it as near as I can.

WHITE.		BLOOMING	ORANGE AND RED.		BLOOMING
The 1 signifies late.		HEIGHT.			HEIGHT.
		Ft. In.			Ft. In.
Defiance, 1	4	0	Anaxo	5	0
Duke, 1	4	6	Aristides, 1	4	0
Elizabeth, 1	4	0	Cassy	3	6
Goliath	4	6	Dupont de l'Eure	3	6
Lucidum	3	6	Fortune, 1	3	6
Madame Boucharlet	4	6	Lysias	4	6
Madame Laborde	3	6	Poudre d'or	3	6
Marchioness	5	0	Queen of Gipsies	4	0
Surprise	3	0	Racine, 1	3	0
Vesta	4	0	BLUSH AND PALE PINK.		
CRIMSON AND RED.			Beauty, 1	5	0
Comte de Rantzau	4	6	Chrystine	4	6
Auguste Mie, 1	4	6	Hermine	5	0
Claudias Ptolemy	3	6	Gem	5	0
Duke de Comylana, 1 ...	3	6	Nell Gwynne	4	0
L'Emir	3	6	Old Queen	3	6
Mount Etna	3	6	Queen of England	4	0
Madame Poggi, 1	3	6	Trilby, 1	4	0
Theresa, 1	4	0	ROSE AND LILAC.		
Vortigern, 1	4	0	Aregina, 1	4	0
YELLOW.			Alfred Salter	4	0
Annie Salter	3	9	Calypso	4	0
Changeable Yellow	3	0	Chrysospe, 1	4	6
Etoil Polaire	4	0	Leon Lequay	3	6
Chevalier Dumage, 1 ...	3	6	Minerve, 1	4	0
Cloth of Gold, 1	3	6	Madame Pompadour ...	4	0
Gerb d'or	3	0	Nonpareil, very 1	4	6
Golden Cluster, 1	4	0	Phidias	3	6
L'Ingot d'or	3	6	Princess Marie	3	6
Old Tassled	5	0	Rosa Mystica, 1	4	0
Queen of Yellows, 1	5	0	Strafford, 1	3	0
Temple of Solomon	5	0	Themis, 1	4	6
Yellow Formosum	4	9	Versailles Defiance	3	0
ROSY RED.			SULPHUR.		
Bixis	3	0	Bicolor	2	6
Bethulia, 1	4	0	Formosum	4	0
Campestroni, 1	3	6	Jenny Lind	4	6
De Creque	4	0	Le Prophete, 1	4	6
Grand Napoleon, 1	4	0	BUFF.		
Pilot, 1	3	0	Aries, 1	4	0
Princess Royal	3	0	Incomparable	4	2
Rolla, 1	4	0	Orlando, 1	4	6
			RED AND VIOLET.		
			Christopher Columbus ..	3	6
			Madame Camerson	2	6

SHOW FLOWERS.

These may all be depended on as the best show, or incurved flowers, either for pots or borders, as you may think proper:—

Alfred Salter, pink	King, peach
Anaxo, red and orange	Lysias, red orange
Annie Salter, golden yellow	Leon Lequay, lilac
Aregina, amaranth	L'Emir, light red
Auguste Mie, red and gold	Nonpareil, lilac
Beauty, blush	Plutus, bright gold
Campestroni, deep rose	Phidias, rose and blush
Christopher Columbus, red and violet	Pio Nono, red and gold
Cassy, orange and rose	Queen of England, blush
Defiance, white	Rosa Mystica, creamy rose
Dupont de l'Eure, orange and crimson	Racine, gold and brown
Formosum, sulphur	Strafford, rosy purple
Golden Cluster, gold	Stellaris globosa, carmine, crimson, and white
Goliath, white	Themis, fine rose
Hermine, blush and light purple	Vesta, white
	Versailles Defiance, bright rose
	Yellow Formosum, pale yellow

POMPONE, OR LILLIPUTIANS, AND HYBRIDS,

FOR GROWING IN POTS.

Argentum, white	Coletric, nankeen and rose
Aurora Boreale, dark orange	Drin drin, yellow
Autumna, buff	Durnflet, rose and carmine
Bayardiere, silvery rose, late	Helene, rosy violet, late
Berrol, golden yellow	La Vogue, bright gold
Brilliant, crimson scarlet, late	Madame Roussilon, white and rose
Bijou de l'Horticulture, sul- phur white	President Decaisne, rose car- mine, late
Bob, red, late	Modee, white
Cedo Nulli, white and purple tipped	Riquiqui, plum, late
Comte Achille Vigier, pale mottled salmon	Surprise, lilac
	Sainte Thais, chesnut orange

The above are the best for show plants, and may all be depended on for free blooming.

POMPONES FOR BORDERS,

INCLUDING THOSE ALREADY NAMED AS SHOW PLANTS FOR POT CULTURE, WHICH I SHALL NOT NAME AGAIN.

Adonis, rose and white	Asmodie, red orange, late
Anne Boleyn, orange, late	Atala, lilac
Apolloni, gold	Criterion, orange

Doctor Bois Duval, carmine red, late	La Pygmee, gold and yellow, 1
Elise Mialley, deep rose, late	Madame Albert, salmon and rose, late
Grand Sultan, chestnut red	Madame Jules d'Ivry, white
Graziella, blush lilac	Mignonata, orange and red, 1
Hector, yellow and brown, late	Penie d'or, canary, very dwarf
Hendersonii, pale yellow	Princess Matilda, white, late
La Lilliputian, red	Sacramento, yellow and brown, light, very early
La Nain Bebe, lilac, violet scented, very dwarf, late	Uranie, blush, late
La Parisienne, white and rose	Vesta, white

Should you wish to grow a few large specimens in No. 12 pots, for exhibition, I would recommend Mount Etna, Madame Camerson, Defiance Vesta, Annie Salter, Chauveri Durnage, Queen of England, Chrystine, Madame Poggi Osiris, Princess Marie, Auguste Mie, Alfred Salter.

[To be continued.]

SAMUEL BROOME.

Temple Gardens.

PRACTICAL

Management & Cultivation of Potato Seed,

WITH RESULTS.

THE experience of past years should have taught every one the impropriety of planting the Potato on freshly manured land, and although a heavy crop of the early weakly sorts cannot be obtained except from land in good condition, the use of strong manures should be avoided. By selecting a piece of land well manured last season for a green crop, and giving it a good dosing of wood ashes and vegetable refuse, previous to planting the Potato, it will be less likely to favour an early attack of disease, than if rich stimulating manures were used. The early and second early crops should be planted the first fortnight, and the main crop at the latter end of the month. It is hardly necessary to name any particular sort, as each cultivator has his favourite variety. For small gardens, those producing dwarf

haulm should be chosen. For seed, choose good-sized well-ripened Potatoes, and lay them in a dry place, until they sprout; then cut them carefully, and plant the crown sets by themselves, as they contain much better and more matured eyes than the side sets. By numerous experiments, sets cut from large tubers, each containing one good strong eye, have been proved to be superior to whole small Potatoes, or sets containing several smaller eyes. Large tubers cut into sets, each set containing a single eye, are greatly preferable to small Potatoes with all the eyes cut out except one, even supposing the weight to be the same in both cases. The great difference is, the cut Potato has a large eye, or bud, which remains undiminished in the section; the small Potato, on the contrary, has a small eye, or bud, from which, in the first instance, only a weakly shoot proceeds, whereas the other starts vigorously, inducing early and extensive breadth of foliage, supported on a stem capable of bearing it up in the light, and hence producing better tubers than either one weak stem or a multitude of such. The extra weight or quantity of Potatoes required for sets, if large ones are used, bears but a small proportion to the increase and quality of produce which the same space would yield, if planted with weaker sets. Potatoes, for seed, should never be kept in great bulk together, as the fermentation or sweating which they undergo, often destroys their vegetating powers, and to this cause has been traced the failure of many crops. They should be placed where they can be frequently turned, to prevent their early growth and consequent exhaustion. If we refer back to the Potato as it was introduced into Europe, from the mountainous parts of South America, we find that though treated with the greatest care, it was for a long time so decidedly exotic, as to refuse to mature its seed.

Acclimation has already done much for the Potato, by working out many earlier varieties, and by training the later sorts to mature their seeds, and resist the action of moderate frost. But it will probably do yet much more, for frequent, careful, and scientific sowings,

will not only yield valuable new varieties, but produce comparatively hardy plants, capable of offering sturdy resistance to the disease. In the year 1854, I gathered twelve potato-apples, or seed pods, from the Fluke Potato, dried them in an airy place, out of the sun, and, when dried, placed them in a small paper bag till the following year. In the month of April, 1855, I sowed the seed in a wooden box, and placed it in the cucumber house, till the plants were about three inches high. This was about the latter end of April. I then removed them to a cold pit, for ten days or a fortnight, to harden. I then planted them in a warm sheltered situation, in the garden, in rows, nine inches apart. When taken up in the autumn, the tubers were about the size of apricots; they were well greened, hardened, and then stored by. The following year, 1856, in the month of March, I planted them on a piece of land in good condition, and at the time last year when the haulm of the Potatoes was attacked with the disease, the haulm of the seedlings was as green as grass, till the latter end of October; in, fact, the sap was not all gone till the latter end of November. When I lifted them, I counted two thousand four hundred and twenty-six good medium-sized tubers.

My opinion is, if the Potato growers would follow the example of the florist, by hybridizing the most hardy sorts, they would eradicate the disease altogether.

As the Potato is a perennial tuber, I will speak further in the autumn number.

EDWARD KEYS,

GARDENER TO F. E. SHIPLEY, ESQ., HEMPSHILL HALL.

Superphosphate of Lime.

To discover at once, and in the same agent a powerful fertilizer and a protector from the ravages of subtle enemies, has been the desideratum of the florist. The fairest expectations of the enthusiastic amateur (and it

is particularly for this class I sit down to write) have been dashed to pieces, perhaps just at the moment when they have excited the most sanguine hopes of success. For instance, imagine a splend bed of Pansies, which has been purchased at considerable expense and labour, annihilated in a few days, by that most destructive of all enemies, the centipede, an enemy of which, by its insignificant appearance, he has little knowledge, and of which he frequently overlooks the existence. This has happened to the writer more than once, and perhaps this has been the greatest cause of his endeavour to discover a remedy. Again, how many beautiful Rose trees have been almost, if not in many instances wholly destroyed by the ravages of the aphis or greenfly, as well as the pest described so emphatically as

“ A worm i'th' bud.”

The remedy, of which I shall shortly treat, may also be applied with perfect success to Gooseberry trees, as a preventive of the ravages of the caterpillar, while for dressing apple trees, to avoid the devastating effects of the aphis lavata, or white bug, it will be found almost invaluable. In short, anything animated and injurious cannot withstand its power. This remedy, as your readers will have discovered in the title of this paper, is superphosphate of lime. When I say superphosphate of lime, do not imagine for one moment that I mean the stuff called by that name, and sold by dealers in artificial manures, but superphosphate prepared as follows:—Get a quantity of ground bones, or, what is far better, a quantity of kitchen bones, break these into pieces as small as you like, the smaller the better, put them in an earthen vessel, moisten them well with water, and then add two-thirds of their weight of sulphuric acid or oil of vitriol. Let this stand for a fortnight, occasionally stirring it about; at the end of this time the bones will be reduced to a pulp and fit for use. Now comes the question, how shall it be applied? This question must not be answered till the case has been duly considered. It is now in colour similar to dirty whitewash, and as this might be objectionable as

a top-dressing, to obviate the difficulty, take of the superphosphate one part, add three parts of rain water, and incorporate well and allow it to settle, when the clear part may be poured off, and in this the ends of Rose trees, &c., may be immersed without waste. The mixture may be applied over head in an unclarified state to plants, provided they are watered with clean water before the application has become dry. The soil is soon restored to its former appearance, by being raked over, and no fear need be entertained in regard to the foliage. But while the foliage is in no danger, it must be borne in mind, that the blooms are very greatly affected; and therefore the time of application must be taken into consideration. I have used equal parts of sulphuric acid and water to the roots of Nettles, &c., and by close examination, have seen the mixture absorbed into the plant, ascending the stem, and diffusing itself all over the plant, by the aid of its laterals, in an almost incredible space of time. The best mode of application to Gooseberry trees, is by means of a fine rose watering-pot, while to such trees as Apples, Pears, Plums, Vines, &c., one-third should be added to the usual composition. All fruit trees ought to be dressed before the buds break into leaf, as it is a well established fact that the larvæ are deposited in chinks, cracks, and wounds, and there remain dormant during the winter. The present, therefore is the most opportune time for destroying these. I have used the composition also for root crops, such as Swede Turnip, Mangold Wurtzel, &c., with great success, by mixing with it a portion of charred earth, wood ashes, or sand, well incorporated. After forming the ridges and flattening the top, I make a furrow with the back of a rake and put in the mixture, covering it by drawing the rake over the top. This manure excelled all others last year with me, in the production of root crops. Another great use is for lawns. How often I hear complaints respecting worm casts on lawns and parterres, and I believe a watering of this, as recommended for Gooseberry trees, is the most certain and expeditious mode of expelling them, besides giving

to the grass a healthy and beautiful appearance. The amateur will profit by the suggestion, and I will conclude my remarks by wishing every success to my worthy friend the *Midland Florist*.

The oil of vitriol may be purchased at the works for one penny per ounce.

J. B.

Knutsford.

PERSONAL NARRATIVE,

WITH

Sketches of the Flora of South Australia.

BY J. F. WOOD, F.H.S.

No. I.

I FORMERLY took great delight in jotting down, for the perusal and amusement of the readers of the *Midland Florist*, my rambles amongst the flowers of Great Britain. Distance has not lessened the desire of affording them information, and if any description of mine of the beautiful country in which I am now located will give them any pleasure, I shall deem the trouble of imparting it a pleasing task. My object in the present communication will be an account of an excursion made in October, to "The Murray Scrub," as it is here termed, or, more properly speaking, the dense low forest which skirts the banks of that fine river.

I had heard much of the beauty of the plants in that locality, and an opportunity of inspecting them occurring, I very gladly seized it. My partner in the nursery business, who has a thousand acres of land of his own, and who is an extensive vine grower and orchadist, had formed a party to explore the floral treasures of this part of the country, and preparations were made accordingly. The party consisted of three ladies, Mr. E., his son, Mr. M., and myself. Two light spring-carts were provided, in

which were stowed away a tent, with all the requisites for camping in the "Scrub." The ladies, with Mr. E. and his son, rode in the carts, while Mr. M. and myself accompanied them on horseback. The weather had been very fine and warm for some days previously, but now it showed symptoms of rain, but, as everything was arranged, it was determined to risk it. I must describe our journey, as it will give the readers of the *Midland Florist* some idea of the inconveniencies of "bush travelling." We had not proceeded more than a mile before it began to rain, but being all pretty well rigged for such an eventuality, we proceeded. We soon passed the traces of cultivation, and got into a rough uncultivated country. Having to ascend tolerably steep hills, the drivers had to pick their way through blocks of quartz, and other rocks, which protruded from the surface; and in descending to the intervening gullies, great care was required to keep the horses on their legs. From this time, and during the day, it rained most piteously, which increased the difficulties of the way. At the base of these rocky hills there was usually a running stream, and as the jolting across was fearful, the ladies got out. Sometimes there were stepping-stones; at others I carried them over—not as Robin Hood did the friar, but whipped them up in my arms and landed them safely on the other side; and, having colonial jack-boots on, I was enabled to do it without inconvenience. Our route next lay over a high craggy mountain, up which was a track made by bullock drays. The sides were thickly covered with the She-oak (*Casuarina*), mixed with Gum trees (*Eucalypti*), and the Silver Wattle (*Acacia*). Large lumps of stone rose above the surface, and one of the first mishaps was a fearful crash amongst bottles and crockery; however, we could not stay to examine the mischief done there, and it was with great difficulty we descended into the ravine on the other side. Here, between high rocky hills, covered with beautiful varieties of Everlastings (*Gnaphaleums*), Mallows, *Acacias*, in full flower, we wound our way on the margin of the bed of a mountain torrent, crossing it backward and for-

ward, as the vehicles could find space to get along. It was from the top of the mountain we had just descended, that I got a view of the country bordering the banks of "The Murray." As far as the eye could reach, bounded by the horizon, was one vast expanse covered with trees, conveying to my mind the one powerful feeling of "immensity,"—a feeling which many things in this wonderful country is calculated to create. The colour of the trees, however, was much darker green than that of the silvery or greyish green of the Gum trees, which abound in the country we had just passed through. Proceeding, we came, with many slips and jolts, to some huts, near a copper mine. These were uninhabited, but we called a halt, to get some small barrels filled with water from a spring, and to take "a snap" as well we might. The extent of our loss in the smash before alluded to, was half the cups and saucers, a bottle of cream, and the destruction of a rhubarb pie. All this we took very stoically, for the rain came as colonial rain usually *does come*, and the poor ladies, with having to get out and walk during the ascent and descent of the hills, were as wet as they well could be, so that altogether our pleasure party looked unpromising enough. We were not far, however, from "The Scrub," and, after riding about three miles further, we entered it, and I can safely say it exceeded all I had imagined of it.

[To be continued.]

Management of Cape Heaths.

PERHAPS there are some readers of the *Midland Florist* who will be grateful for a few remarks on the management of Cape Heaths, so as to have them in a healthy bushy state. To elucidate my system of management, it will be necessary to begin with the plants at the earliest stage. The beginner, therefore, must procure small

plants of those varieties he is desirous of growing, and be careful to obtain such as are in a healthy condition, and promise well. The plants ought not to be more than two years old, and those having the top shoot pinched out when not higher than an inch from the surface of the soil. When you have obtained plants of this description, examine the roots by carefully turning them out of the pots, keeping the ball of earth entire. If rooted well, they should be repotted into larger sizes, so as to allow of an inch of additional fresh soil. This repotting may be repeated as indicated by the state of the roots, which should be numerous, and of a clean healthy character. Particular care must be taken not to overpot such varieties as *E. tricolor*, while some of the *Ventricosas*, *E. Hemalis*, and *Wilmorea* will be benefitted by more frequent shiftings. As they progress in growth, great attention must be paid to the training of the plants, which should be of as fine form as possible. In order to have them bushy, the hearts of the young shoots must be pinched out, and this is all the pruning necessary. The plants should be looked over twice during the growing season, and the satisfactory growth, fine form, as well as the increase of bloom, will amply repay for the attendance.

The young plants should not be allowed to bloom till they are good-sized specimens; consequently as the flower buds appear they must be nipped off at once, and the plants will be much stronger, and attain a desirable size much sooner than if allowed to bloom. When these points are secured, the blooming may be promoted.

The soil most suited to Cape Heaths is fibry peat, with a small portion of fibry loam, and a little silver sand, all well mixed together. Good drainage is another point, as is also a moderate supply of water; too much is hurtful. Those cultivating the Heath will find these hints, if properly attended to, produce satisfactory results.

H. H.

Nuneham.

Annuals.

THESE are a large family, but none become popular unless they have certain properties, and too many are little better than weeds; novelty only secures one season, for unless there is something inviting in the flower, nobody wants a thing a second season. In the first place, the flowers should be more abundant than the foliage. Secondly, they should be of some decided colour, that can be seen without stooping to them. Thirdly, the blooming season should last some time. It is true that instances occur where the rich perfume alone stamps the value, without another point, for instance, *Mignonette*. The very best annual we have, because it combines all the properties, and rich odour into the bargain, is the *Ten-week Stock*, a flower that has been brought to such perfection in Germany, that we have them in all colours, graceful in form, abundant in bloom, and we are enabled by sowing at different seasons, to keep up a bloom from March to September. As to the colour, the Germans profess to sell thirty-six varieties of the *Ten-week Stock*, and we have ourselves had and have a dozen very distinct varieties of a large-flowering kind that we may call perfection. The *Sweet Pea* will always hold a place in British gardens, for its perfume, though it is not every body who admires the smell. As we descend from the perfumed kinds, we come to the sorts which have the other properties in perfection, and first we must place the *Aster*. Not only has this been improved, but new families have struck out. First, the ordinary *China Aster*; second, the globe or quilled; third, the pyramidal, with ordinary flowers; fourth, the pyramidal, with globe flowers; fifth, the pyramidal dwarf bouquet; sixth, the pyramidal *Anemone-flowered*, and *Truffant's French Pæony-flowered*, and each of these of mixed colours. But even the old-fashioned *Aster* is a fine annual. Then we have *Nemophila*, *Collinsia*, *Erysimum*, *Larkspurs*, *French Marigolds*, *Coreopsis*, *Candytuft*, and *Lupins*. What can beat

these twelve? every one of which may be sown in the open air, and be grown in perfection by those who have not a foot of glass. Keeping the same properties in view, let us take the Balsam, *Thunbergia*, *Phlox Drummondii*, *Rhodanthe Manglesii*, *Clintonia*, and the Imperial Indian Pink (double), especially adapted for pot culture and perhaps unequalled when well grown. By the way we are informed that the new annual everlasting flower called

ACROCLINIUM ROSEUM,

(we give it a line to itself) is in some respect like the *Rhodanthe*, but very superior in size and brilliance of colour, and so it should, be for very few seeds are a shilling. We have to take the German seedsman's word for it, but we shall be gratified if it differ for the better, for *Rhodanthe* is of elegant habit. And although we have mentioned all these as better for pot culture, those who have well-drained gardens and are in pure air, may grow every one of them in the open ground. We have unquestionably taken the cream of the annuals, but there are a few more that may be tolerated. *Zinnea*, *Campanula*, *Ageratum*, *Saponaria*, Chinese Hollyhock, and *Convolvulus*. It is also to be recollected that there are several varieties of some of these annuals, but those who grow annuals can scarcely select a bad one from these. We may be told, perhaps, that we have omitted a principal subject, the Cockscombs, but these require the hotbed or the stove, whereas the others do not, and we have confined our notice to such as can be grown in the open air by our amateur readers, although some that we have mentioned are better grown in pots and under glass. What rubbish there must be palmed on the public when schemers offer a hundred varieties of annuals for a crown; and when we know the consequence of depending upon quality, what weakness it is to attempt saving by the purchase of them at cheap shops. Every body, who knows anything about saving seed, must know that those who do it properly, and from proper flowers only, cannot save an ounce; when others, who take any-

thing, can save a pound, and what is it good for when they have saved it? The blooms of Balsams have been sent to us full three inches across and as double as a Camellia, and those are the kinds to save the seed from.

GEORGE GLENNY.

Cultivation and Propagation of Epacrises.

THE gardener who has to keep up a good display of flowering plants in his conservatory during the dark and cheerless months from December to April, needs to devote considerable attention and forethought to the selection of his plants. Among those which are well adapted for this purpose, the beautiful family of the Epacrises stands pre-eminent. The variety and beauty of colours, the vast profusion of the blossoms, the length of time they remain in perfection, and the close atmosphere they will stand for a short time, I think justly entitle them to rank first amongst winter green-house flowering plants. Propagation by cuttings is the most important method by which Epacrises are multiplied, and is far more frequently adopted than that of raising them from seed, in consequence of cuttings arriving at a blooming state at a much earlier stage of their growth. I find the best time for striking the Epacrises is from the beginning of March to the end of August. Practice has taught me that the earlier the cuttings are struck the better it is for the well-doing of the plants, as you have a chance of potting them off, and getting them established before winter.

The manner in which the soil is prepared for the reception of the cuttings is of great importance, as on it greatly depends the future failure or success. I choose four or six-inch pots, and as a thorough drainage is indispensable, I fill them half full of potsherds, and place over them a layer of moss or turf peat, just enough to pre-

vent the soil from washing down among the drainage. I then fill up to within one inch of the top of the pot with soil, consisting of two-thirds silver sand, and one of good peat, and make up the remainder with pure silver sand. The pots being thus far prepared, I take others a little deeper and wider, and put as many potsherds in them as will raise the smaller pots to the same level, then place them in the centre, and fill the vacuity half up with some small potsherds, then a layer of moss, and the remainder with sand. I have proved that this double potting will assist in securing an uniformity of moisture and temperature. I then water them well with clean rainwater, and then let them drain well, before the cuttings are inserted. In selecting the cuttings, I like the young shoots just as they begin to break, with a small heel of the older wood, and some of the lower leaves off, cutting smooth the heel with a sharp knife. They are then ready for potting; insert them in circles or lines, not allowing one to touch another. After watering with rain or clear river water, I let them dry, then plunge them in a sweet hotbed with a bottom heat of sixty-five degrees, and cover them with a bell-glass, keeping them shaded from the hot sun. Watering must be attended to, so as to secure a uniform state of moisture; for if the cuttings are allowed to droop for want of water, they scarcely ever succeed well. Afterwards I take the bell-glasses off four or five times a week, and wipe them dry. When well rooted, the bell-glasses should be gradually taken off, so as to give the cuttings a chance to harden themselves before potting.

[To be continued.]

E. CLEETON.

Dumbleton.

ANSWER TO QUERY.—Mr. Travis will find the following answer from our old friend, Mr. Hepworth, of Lea Bridge.—The bud of a Tulip bloom, if within a few days of being or coming in bloom, might be cut and placed in something like a blood heat, not too closely confined, and brought to perfection a day or two sooner than it otherwise would be by allowing it to bloom on its own bottom; but it would be folly in any man expecting to get a more pure or perfect flower by cutting in a green state, as the style of colouring is given to it long before it clears or begins to show distinctly.

GOOD NEWS FOR FLORISTS, AND HORTICULTURISTS.—The Abbe O'Donnelly, author of several works on the higher mathematics, and recently one relative to the "Quadrature of the Circle," has just written to the *Gazette de France*, an interesting letter on the weather which is to mark the spring of 1857. "I am happy" says the writer, after some prefatory remarks, "to be able to announce, with certainty, for the ensuing year, one of the finest springs that has been for a considerable length of time, starting from March 20th, up to July 20th, with the exception of some insignificant variations, towards the extreme term of that period. The bursting into flower of the various crops will be uncommonly fine; and the too early portions which, during some years back, have been affected by the deleterious influence of the magnetic fluid, will be but slightly influenced by it, and in addition will be protected by a genial warmth, which will carry the season on to April 20th, after which no danger need be apprehended for vegetation."—*Radford Vicarage, 1857.*

The Great National Tulip Society,

AND THEIR EXHIBITIONS.

I SHALL be much obliged to the editor of the *Midland Florist* if he will have the goodness to insert in his March number the few remarks which I beg to offer, for the consideration of the managers for the current year, of the National Tulip Society's exhibition, appointed to be held at Manchester; and which exhibition will be the ninth of these very instructive, interesting, and I may say, truly delightful gatherings of the cultivators of this empress of Flora.

Many of my florist friends know I take a lively interest in these reunions, and that I have, in my humble way, exerted myself for their advancement. I have been a subscriber to the National Tulip Society from the first; at all of their meetings I have been an exhibitor, with the exception of the first, held at York—my blooms being early that year, they were past before that show day. I mention this to show the friends of this society that I make it a matter of duty, so far as I can, to give the nation, not only my money—but my flowers also. Not that I am proud of my flowers, and think them so excellent that they cannot be beaten—for I well know to the contrary—but I bring the best I can of *my own* growing, and I think every member of the National Society will be the same, regardless of the *trouble*; if we continue

this practice we shall always have a show worth calling a national exhibition, and be variously successful, according to our merits. As we cannot all be first, we must make up our minds, when we are beaten, to take courage and try again next season; for my part I have made it up in my mind to do so, so long as our shows are conducted *impartially*. I say impartially—because it is of *vital* importance that we so conduct them, that all our members have a fair chance of success—a *fair field and no favour*. Partiality must not be tolerated; even the slightest appearance of such a thing will damage us.

Our York friends set us a first-rate example, which, in some important particulars, we shall never surpass.

Why have our managers of late taken *all* the responsibility of the appointment of judges, and the fixing of the day of exhibition upon themselves? These two very important matters,—in fact, I may say, two of the *most important* of all,—our York friends very *wisely* and *liberally*, as we think, made an *open* question for the intending exhibitors to manage for themselves, and, by vote of the majority, the judges and the day of exhibition were fixed upon. They simply gave the names of a much larger number of gentlemen than they thought necessary to do that very difficult and responsible duty, whom they thought well qualified for the office, so that those gentlemen who obtained the most votes were chosen, to the number required. And, by the same rule, they named three different days for the show to be held upon, the first named was as early as they thought could be for the bloom, and the last the latest.

Circulars were sent to all those persons who had entered their names as intending exhibitors, and paid their subscription, with the names of the gentlemen nominated, and the days selected which they thought most convenient for the show. These circulars were returned with the subscriber's vote written thereon, giving the day that he thought would be the best, and voting for the three gentlemen in whom he had most confidence. These were evident marks of fair play, and open dealing, and the call of our York friends was deservedly responded to, and they will never be forgotten for their noble endeavours and triumphant success, as well as for the great spur they gave to the improvement of this noble flower, by the establishment of a National Annual Tulip Show, on the itinerant principle; thus, by these reunions in *different localities*, tending to assimilate the taste and improving the judgment of all the growers.

I shall not attempt to dwell upon the vast improvement of the flowers brought to these exhibitions, but I will take the liberty to say a word or two upon some of the improvements that have been made in the manner of staging the blooms. The first great step was the introduction, by our Birmingham friends, of the uniform green stands for sixes, nines, and double sixes, and since increased, in some cases, to treble sixes. And I am happy to say, last season, we did away with class showing in *single* specimens altogether, by the far more interesting introduction of stands of *three* blooms, shown in classes, thus doing away with the paltry bottles altogether, and, as we think, adding very much to the general effect of the exhibition, and giving the smallest grower a chance to win a stand.

Still we think there is room for improvement; for instance, we cannot think it right that the *first* prize should be given for *six* blooms. We would give it to the *greatest* number—say eighteen for dealers, and twelve for amateurs, and let these prizes be of equal value: make the large stands, all dissimilar blooms, equal numbers of each class, with a heavier entrance than for sixes and threes.

We would keep to the old plan of a feather and a flame of each class for the sixes, and for the threes we would have only *two* classes—a feathered class and a flamed one; thus, for feathers, we should say, one bizarre, one Bydbloemen, and one rose, and the same with a flamed class; and give as many prizes as the funds will admit of in each, the same as in the upper classes; and allow exhibitors to set up two or more stands each, just as the committee may think proper. This plan, we think, would be generally approved of, if once put in practice.

In conclusion, I would just remind our Manchester friends that many complaints have been made, that at the last two or three shows the judges have been interrupted in the discharge of their duty by intruders not being kept clear of the exhibition stand, and persons volunteering their assistance (no doubt with the best intentions), to the judges in the making of their awards. Still this interference is not approved of, and would be much better let alone; if more judges are required, let them be duly appointed.

We should, Mr. Editor, have liked to have said a few words upon the matter of how we think judges might be selected, but we are sure you will have quite enough of us for the present; and perhaps we may be allowed to do so upon a future occasion.

I must just say, I hope our Manchester friends will take these few remarks as they are given—with the best of feeling,—and if anything we have named may not have occurred to them, the hint may be useful. And that the Manchester exhibition may be a *bumper*, and may add another link to the chain that encircles and binds florists together in the bonds of goodfellowship is the sincere wish, Mr. Editor, of your obliged humble servant,

W. R. LYMBERY.

Nottingham, February 16th, 1857.

Notes for the Month.

AZALIA INDICA.—The advice given last month will apply to this, as they require but little attention. Supply well with water, keep clear of decayed leaves, and arrange the branches to give the best effect when in bloom. H. BRASSINGTON, *gardener to Robert Holden, Esq., Nuthall Temple.*

CAMELLIAS.—Plants that have done blooming should be removed to the warmest part of the greenhouse, if convenient, to cause them to make wood and foliage freely. These plants enjoy a moist atmosphere, and should be shaded from the sun, during the time of growth.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling.*

CINERARIAS.—These will now be very gay, and where they are required to bloom for some time, a little shading, during the hottest part of the day, will help to prolong their beauty. Liberal waterings and attention to keeping down greenfly will

be necessary. Late plants will require tying and pegging out. Give plenty of air at favourable opportunities, but prevent cold draughts. Plants that are not in their blooming pots should be repotted at once. If seed is required, select sorts with good broad petals, without serrated edges, and having decided colours, compact growth, and large heads, such as Lady Camoys, Lady Paxton, Sir C. Napier, Picturata, Magnum Bonum, Scottish Chieftain, Exquisite, Admiral Dundas (Ivery), Optima, Lord Stamford, Prince Arthur, &c. The above sorts would ensure a great variety, and even one variety will produce many, for those who are not particular as to quality. The best of the later novelties in this very useful and interesting class are, Brilliant, Duke of Cambridge, Emperor of the French, Excelsior, and Wonderful.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

CUCUMBERS.—Attend to the linings, in order to keep up the required heat, and keep the atmosphere in which they grow as sweet as possible, by giving a little air in the middle of the day, more especially when the sun shines; and as the plants advance in growth, they should be pegged down to the surface of the bed, also gradually adding a little fresh mould around the hills in which they were planted. Give occasional waterings with tepid water, but not in such quantities as to sour and saturate the soil. As the fruit blossoms of those which were planted out in January or early in February will be making their appearance, it will be necessary to assist nature at this early season of the year, by taking off the male flower and inserting its anthers into the fertile blossom when it is fully expanded, as the small amount of air that is given at this season is not sufficient to disperse the pollen for impregnation, without which the fruit will not swell so freely; but as the season advances, the current of air, and the bees that generally frequent the Cucumber frame, will perform the office of fertilization.—JOHN BURTON, *Oxton Gardens.*

DAHLIAS.—It is now time the roots were set to work. Those not having a greenhouse may make a bed four or five feet deep, to allow for settling down. Be sure the bed is sweet before the roots are planted. Cover with five inches of good mould, and do not let the tubers touch the manure, or they will rot. Keep the crown above the soil, so as to show the eyes well. When the shoots have grown about two inches, if stock is wanted, take them off close under the joint, and place them round a forty-eight pot, water them in, and plunge them in the hotbed. If stock is not wanted, divide the roots, which will answer just as well. When rooted, pot them singly, in small pots, and place them in the frame, until they are a good size, but do not let them draw up long, as the more dwarf they are the better and stronger,—H. LEGGE, *Edmonton.*

EPACRIS.—Many of the early-blooming sorts are making a grand display, and are deserving of attention to prolong their

beauty. Keep them in an airy part of the house, and give plenty of water.—H. BRASSINGTON, *gardener to Robert Holden, Esq., Nuthall Temple.*

FLOWER GARDEN.—Any of the operations of last month that have not been proceeded with, should be completed. Improve outlines of beds. Propagate bedding plants freely, in a small hotbed, and continue to sow hardy annuals.—J. LANGSDALE, *Basford Hall.*

FRUIT GARDEN.—Any of last month's operations not already completed, should at once receive attention, as all pruning and nailing should be finished prior to the 15th of the month. At this season, there is little more to do than to protect the bloom, and for this purpose I use large pieces of canvas. These I fasten to the wall, at the top, with hooks, and allow to hang down, over the trees, securing them at the bottom, to prevent them being blown about by the wind, which would beat off the bloom.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

FUCHSIAS.—The whole stock will be growing. Repot such as require it, and maintain a moist genial atmosphere. The plants will thrive with less artificial heat. Syringe occasionally. Give an eye to the shoots, and see that none break off for want of tying to a stick. Water with liquid manure. Never allow the soil to get dry. Young stock may still be increased by cuttings. For autumn-flowering, pinch off all forward blooms.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—This department becomes more interesting, as the plants come into bloom. Primulas, Cinerarias, Camellias, &c. will be at their best, and will require assisting with manure water about twice a-week. Some of the hard-wooded plants will be on the move, and should be freely watered. Remove everything unsightly. Train and tie all climbers; many of the quick-growing varieties will require daily attention. Give air freely, and maintain a temperature of about fifty degrees.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling.*

KITCHEN AND COTTAGE GARDEN.—Push forward the planting of crops at every favourable opportunity. Peas (Champion of England, Hair's Dwarf Mammoth, Knight's Dwarf Marrow, and Lord Raglan, one of the best Peas grown, when true to name), Beans (Thick Windsor, Green Windsor, Johnson's Wonderful, and Longpod), Onions (Brown and White Spanish, Globe), Carrots (Altringham), Lettuce (Drumhead and Bath Cos), Cauliflower, Savoy, Broccoli, Spinach, Beet, Parsnips, Parsley, Asparagus, and Radishes may now be sown. Fork and dress Asparagus beds, and plant Asparagus, Artichokes, Garlick, and Eschallots. Earth-up Peas and Beans, to keep the cutting winds from injuring them.—EDWARD KEYS, *gardener to F. E. ... Hall.*

PANSIES.—The weather may have interfered with the carrying out of the necessary operations for the month, therefore lose no time in repotting into their blooming pots all that have not yet been shifted. The plants will now begin to grow fast, and will require attention to keep them clean and the side-shoots removed, occasionally watering with weak liquid manure. Remove all flower buds as they appear, top-dress those in beds, see that the shoots are securely pegged down, and plant out seedlings.—J. DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—All plants that are required to flower in July must be stopped back the second week in this month, and the house should be kept rather close for a few days, to induce the eyes to break vigorously. When the eyes are prominent, give air at all favourable opportunities, by opening early in the morning and closing according to circumstances. The May plants will be fast showing their trusses, and become very interesting. Draw the syringe over the plants once or twice a-week, after shutting up the house, choosing a bright afternoon. Avoid all cold easterly winds. In watering, give sufficient to moisten the ball of earth throughout. Water with liquid manure once or twice a-week, using the following:—One peck of sheep dung, half a peck of cow dung, and about twenty-five gallons of water. After well stirring, let it remain for a few days, to get clear, and if considered too strong, add more water. Remove all fogged and fallen leaves. Attend to tying out, and give the plants all the room that can be spared.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PINKS.—If this month be open and dry, slightly stir the surface of the beds, and replace firmly plants disturbed by frost or worms. Get ready, without delay, the compost for top-dressing in April, and let it be well sweetened, by turning and exposing it to the open air, protecting it from very heavy rains.—GEORGE WELLS, *florist, &c. Woolwich.*

ROSES.—Forced Roses will now be in bloom; see that they have plenty of light and air, and liquid manure, at least twice a week; keep them clean by fumigating, and those done flowering should have all the weak shoots cut out, and be thoroughly cleaned and stowed away, where they will have plenty of air and light, and be free from frost. Attend to young stock in pits and frames; shift when they require, and as they begin to grow give weak liquid manure. Roses for exhibition in June should now be cut back, and will require constant attention as to watering, fumigating, &c. See that standards are properly staked and tied, and (supposing a part have already been pruned) about the second week prune a second portion; leaving the tenderer kinds, such as Teas and Chinas, to be attended to at the end of the month. Mulching, where it can be done without being unsightly, will always be found beneficial.—H. DAVIES, *Stonegrove Nursery, Edgware.*

RHODODENDRONS.—The buds of many sorts will now be swelling, and they will require a good supply of water, to ensure the flowers coming freely. Young plants, not showing bloom, may be potted into larger sizes, and placed in a warmer part of the house.—H. BRASSINGTON, *Nuthall Temple*.

STRAWBERRIES.—This is the best time for making new plantations; and if the land has been got ready, and the weather is fine and dry, all will be in capital trim for planting. Give the ground a good forking and raking, so as to thoroughly mix the manure with the soil. Then stretch the line, and, with the rake, draw narrow ridges, about two feet apart; tread them firm, and round them nicely with the rake, leaving them, when finished, two or three inches above the general surface. Plant with a trowel, about eighteen inches apart, more or less, according to sorts, and press each plant firmly in with the foot. As soon as the planting is finished, spread stable litter, or tanner's bark between the rows, to the thickness of an inch. If the planting is undertaken when the weather is dry, the roots may be puddled, otherwise they will require watering. The top-dressing of pond mud recommended for old beds, should, some fine dry day, at the end of the month, after sowing a little soot on the surface, be gone over with a besom. The soil will by this time be loose and friable, and by giving it a good stirring with the besom, it will run in among the leaves and about the plants, thereby promoting a strong and vigorous growth. The planting on ridges, though attended with a little extra trouble, is recommended to all who wish to produce superior fruit. With this exception, the above directions will apply to beds planted in the ordinary manner.—WILLIAM JAMES NICHOLSON, *Egglecliffe, near Yarm, Yorkshire*.

VERBENAS.—The cuttings of last month will have taken good root, and may therefore be removed to an airy situation, to harden, before potting singly. As soon as they appear to have stiffened, pot them off, giving plenty of drainage, and if placed in a little heat, to give them a start, so much the better. As soon as the plants have made three joints, pinch out the head. Continue to take off cuttings, which may be struck in a brisk heat.—SAMUEL HUMPHREY, *gardener to T. B. Charlton, Esq., Chitwell Hall*.

WINDOW PLANTS.—Brush off all greenfly, and give more water as the sun regains power. Carefully train Fuchsias, as they will have begun to grow; also train the shoots of Geraniums, keeping them as close to the edge of the pot as possible. Turn the plants round, to keep them in good condition, and a great deal of benefit may be derived from turning them out in a shower of rain.—JOHN BEARDMORE, *Nuthall*.

Floral Exhibitions.

TULIP SHOW.

At Mrs. Potter's, Griffin Inn, Wakefield, May 29.

Feathered Bizarres.

- 1 Platoff, W. Mellor
- 2 Napoleon, ditto
- 3 Surpass Catafalque, ditto
- 4 Waterloo, ditto
- 5 Napoleon, ditto
- 6 Seedling, T. Parker

Flamed Bizarres.

- 1 Pilot, W. Mellor
- 2 Prince Leopold, ditto
- 3 Parker's Sir Geo. Brown, T. Parker
- 4 Lord Milton, W. Mellor
- 5 Polyphemus, ditto
- 6 Prince Leopold, ditto

Feathered Byblæmens.

- 1 Washington, A. Holmes
- 2 Washington, W. Mellor
- 3 Ditto, ditto
- 4 Royal George, ditto
- 5 Lawrence's Friend, T. Parker
- 6 Bienfait, A. Holmes

Flamed Byblæmens.

- 1 Midland Beauty, W. Mellor
- 2 Baguet, ditto
- 3 Beauty of the Plain, ditto
- 4 Lady Flora Hastings, A. Holmes
- 5 Chellaston Beauty, W. Mellor
- 6 Countess of Harrington, A. Holmes

Feathered Roses.

- 1 Aglaia, W. Mellor
- 2 Comte de Vergennes, ditto
- 3 Comte de Vergennes, A. Holmes

- 4 Lady Crewe, C. Boscok
- 5 Seedling, T. Parker
- 6 Lady Crewe, C. Boscok

Flamed Roses.

- 1 Aglaia, W. Mellor
- 2 Triomphe Royale, A. Holmes
- 3 Seedling, T. Parker
- 4 Triomphe Royale, A. Holmes
- 5 Aglaia, W. Mellor
- 6 Seedling, T. Parker

Bizarre Breeders.

- 1 Pilot, W. Mellor
- 2 Parker's Gen. Windham, T. Parker
- 3 Barker's Gen. Strangeway, ditto
- 4 Parker's Sir Edmund Lyons, ditto
- 5 Parker's Sir George Brown, ditto
- 6 Seedling, ditto

Byblæmen Breeders.

- 1 Parker's Count Cavour, T. Parker
- 2 Parker's Benjamin, W. Mellor
- 3 Parker's Earl of Cardigan, T. Parker
- 4 Parker's Lord Raglan, ditto
- 5 Parker's Great Britain, ditto
- 6 Midland Beauty, W. Mellor

Rose Breeders.

- 1 Parker's Queen of England, T. Parker
- 2 Ditto, ditto
- 3 Ditto, ditto
- 4 Parker's Madame Riotori, ditto
- 5 Parker's Miss Ellen Fawcett, ditto
- 6 Lady Stanley, A. Holmes

TULIP SHOW.

At Mr. J. Wilde's, Forester's Refuge, Staley Bridge, June 6.

Maiden Prize—Charles X., J. Ashton.

Feathered Bizarres.

- 1 Charles X., G. Chadwick
- 2 Magnum Bonum, J. Wilde
- 3 Grand Cairo, J. Muir
- 4 Firebrand, J. Ashton
- 5 Trafalgar, G. Chadwick
- 6 Surpass Catafalque, W. Pickering
- 7 Duc de Savoy, A. Hilton

Flamed Bizarres.

- 1 Charles X., T. Penkithman
- 2 Lustre, J. Miller
- 3 Albion, W. Pickering
- 4 Polyphemus, R. Kaye
- 5 Surpass Catafalque, W. Pickering
- 6 Sanzio, ditto
- 7 Surpass Lacantique, G. Chadwick

Feathered Byblæmens.

- 1 Bienfait, J. Knott
- 2 Midland Beauty, W. Cottam
- 3 Wolstenholme's Byb., T. Penkithman

- 4 Violet Amiable, J. Wilde
- 5 Uncle Tom, T. Perkins
- 6 Washington, J. Muir
- 7 La Belle Narene, ditto

Flamed Byblæmens.

- 1 Bienfait, W. Pickering
- 2 Incomparable, ditto
- 3 Catherina, G. Chadwick
- 4 Alexander Magnus, J. Wilde
- 5 Violet Wallers, W. Pickering
- 6 La Bell Narene, J. Miller
- 7 Diana, S. Marsland

Feathered Roses.

- 1 Lady Crewe, S. Marsland
- 2 Heroine, J. Wilde
- 3 Lady Mozley, J. Muir
- 4 Andromeda, G. Chadwick
- 5 Hero of the Nile, J. Miller
- 6 Walworth, W. Pickering
- 7 Village Maid, T. Perkins

Flamed Roses.

- 1 Vesta, W. Pickering
- 2 Unique, J. Wilde
- 3 Agiaia, W. Pickering
- 4 Anastasia, ditto
- 5 Ponceau Brilliant, J. Knott
- 6 Triomphe Royale, S. Marsland
- 7 Fairy Queen, W. Pickering

Bizarre Breeders.

- 1 Earl Radnor, W. Pickering
- 2 Polyphemus, J. Miller
- 3 Surpass Catafalque, W. Cottam
- 4 Willison's King, W. Pickering

Byblæmen Breeders.

- 1 Village Maid, J. Wilde
- 2 Lady Cath. Gordon, W. Pickering
- 3 Newcastle, G. Chadwick
- 4 Emily, W. Pickering

Rose Breeders.

- 1 Unknown, S. Marsland
- 2 Godet Parfait, J. Ashton
- 3 Maid of Orleans, S. Marsland
- 4 Verpoort, W. Pickering

Selfs.

- Min d'Or, T. Perkins
White Flag, J. Muir

TULIP SHOW.

At Mr. J. Fitton's, Unicorn and Park Inn, Royton, June 7.

Judges.—Messrs. B. Hague, J. Marsden and J. Clegg.

A silver cup, value three guineas and a half, was awarded to H. Travis, for the best stand of two rectified flowers, Atlas and Charles X.

Feathered Premier.—Charles X., Travis.

Maiden Prize.—Atlas and Charles X., H. Travis.

Premier Pan.—Atlas and Charles X., H. Travis. 2. Sanzio and Heroine, J. Lund. 3. Atlas and Newcastle, S. Barlow. 4. Vesta and Charles X., B. Hilton. 5. Sanzio and Magnum Bonum, J. Heap. 6. Bienfait and Charles X., L. Fox.

Feathered Bizarres.

- 1 Charles X., J. Wood
- 2 Magnum Bonum, J. Ashton
- 3 Lord Lilford, J. Heap
- 4 Masterpiece, S. Barlow
- 5 Gold Cup, ditto
- 6 Crown Prince, B. Hilton
- 7 Rising Sun, ditto

Flamed Bizarres.

- 1 Sanzio, H. Travis
- 2 Polyphemus, J. Ashton
- 3 Charles X., B. Hilton
- 4 Albion, J. Ashton
- 5 Catafalque, ditto
- 6 Pilot, S. Barlow
- 7 Lustre, J. Ashton

Feathered Byblæmens.

- 1 Bienfait, J. Ashton
- 2 Violet Amiable, H. Travis
- 3 Buckley's 71, ditto
- 4 Lancashire Hero, ditto
- 5 Incomparable, J. Lunn
- 6 Sable Monarch, J. Ashton
- 7 Maid of Orleans, S. Barlow

Flamed Byblæmens.

- 1 Sarah Ann, S. Barlow
- 2 Guillotine, B. Hilton
- 3 Catherine, J. Heap
- 4 Diana Bruin, B. Hilton
- 5 Bienfait, ditto
- 6 Buckley's 71, H. Travis
- 7 Queen Charlotte, ditto

Feathered Roses.

- 1 Lady Crewe, L. Fox
- 2 Heroine, H. Travis
- 3 Count, J. Lunn
- 4 Celestial, S. Barlow
- 5 Andromeda, J. Lunn
- 6 Claudiana, H. Travis
- 7 Fairplay, B. Hilton

Flamed Roses.

- 1 Triomphe Royale, S. Barlow
- 2 Unique, J. Heap
- 3 Agiaia, J. Ashton
- 4 Vesta, B. Hilton
- 5 Celestial, S. Barlow
- 6 La Vandicken, ditto
- 7 Fairy Queen, W. Bentley

Bizarre Breeders.

- 1 Duke of Hamilton, B. Hilton
- 2 No. 15, S. Barlow
- 3 Duke of Kent, H. Travis

Byblæmen Breeders.

- 1 Princess Royal, S. Barlow
- 2 Catherine, ditto
- 3 Sancta Sophia, W. Bentley

Rose Breeders.

- 1 Celestial, S. Barlow
- 2 Queen of England, H. Travis
- 3 Anastasia, J. Ashton

Selfs.

- Min d'Or, S. Barlow
White Flag, B. Hilton



APRIL.

Cross-breeding

THE

RANUNCULUS, PINK, PICOTEE, PANSY, AND TULIP.

MR. EDITOR,—In the March number of your useful periodical you honoured me by the insertion of a chapter on cross-breeding the Auricula and Polyanthus, I however neglected, in concluding that article, to mention that crossing Polyanthuses with each other is performed exactly in the same manner as pointed out for the Auricula. With your permission, I will offer further suggestions for the guidance of those who may attempt the cross-breeding of other plants ; bearing in mind that I write not for the high-bred gents, but only for the humblest capacities, so that he who runs may read, understand, and practice, I shall therefore, in the most plain manner, endeavour to give the young beginner a few practical hints on the management of cross-breeding.

THE RANUNCULUS.—This is a most charming flower, a great favourite of mine, and requires much attention, when the flowers are nearly fully blown. When in this state, I go over them three or four times a day, that is the finest and best marked, for I never take seed from any but *first-class* flowers, and many of these will be found to contain neither pericarp nor anthers, and of course cannot bear seed. I know well all my flowers which, with crossing, will bear seed; some of them are so full on the crown that I cannot cross unless I open up the top of the flower, take my very small scissors and

APRIL—VOL. XI.

L

gently extract two or three rows of the very smallest petals which surround the seed vessel; by this operation the top of the pericarp is made visible. (These sorts, remember, bear no pollen, so cannot fertilize themselves.) When this is done, I watch all my fine semidoubles, which bear pollen abundantly (and these I retain in my bed principally for their fine pollen, shape, and colours), and when, with my pocket lens, I find them ripe, I go over all those flowers which I prepared, and, through my glass, observe if the pericarp is exuding a viscous matter on the summit of the seed vessel; if so, I again look over to find the flower that has the most plump and best ripened pollen, and with my small steel pincers, I extract an anther in the most gentle manner possible, and sprinkle it on the summit of the pericarp. This done, I apply my lens and see if the farina adheres; if so, all is well. I then proceed to my next favourite, and continue watching from hour to hour, to get each flower in a fit condition for crossing. But remember, when this is done and all may be thought finished, still some of your favourites will not have taken. Next morning you review all you have wrought upon; some, on the top of the pericarp, you will observe to have contracted a dark brown pasty dry matter,—if so, the flower has taken; if on the other hand, the summit still shows a sweaty nature, you must apply another anther or two, at the same time bearing in mind that each flower crossed must be protected from rain and dew by a small square of glass, until the seed is perfectly ripe. It would be well to caution those who have a desire to preserve the purity of their flowers for exhibition, especially those having white grounds, not to cross such with the pollen of high-coloured flowers, which will tend to *stripe*, and *mottle*, and *tarnish* the colour of a pure white ground, which every genuine florist who loves flowers for their *own sake*, should study to avoid. Purity, purity, no green tops, yellowish white, or pointed petals!

THE PINK.—A sweet flower; one of my especial favourites, and to cross this gem of Flora, should be the

great study of the true and genuine florist, to raise it as soon as possible, and not by tardy steps, to the summit of perfection, for well worthy it is to have the toils and pains bestowed upon it, which it so very richly merits. In the first place, then, what I practice is, to carefully select father and mother, and let each be of good habit and free growth, both of the purest white and same colour in markings, with well rounded broad thick petals, and a white edge outside the lace, which I deem a very great improvement. The selection being made, perhaps you will find, as I have done, that some of the varieties of Pinks are so full in the crown, that both stigma and anthers are rather difficult to be got at; then my practice is, when half-blown, to move round the bed (not on all fours), and open the seed-bearers, cut out very gently all the anthers in a green state, and also, if the flower is very double, a few rows of the smaller petals surrounding the seed-vessel. This done, I proceed to the male or fixed pollen flower, cut off the horns or stigma, and if very double, a few rows of the crown petals. By doing this, the anthers or pollen bags get more light and sun heat, and by fixing over both a square of glass the process of bringing the flowers to maturity is accelerated; this done, the patient and persevering florist must examine from day to day, aye from hour to hour (I, at least, in cold Scotland, am obliged to labour so, for any fine seeds I obtain), with his pocket lens and pincers in hand, the horns or stigma, and on perceiving them in a viscous or moist state, he will then look out, and that quickly, for an anther or two shewing well-matured farina, which, with his pincers (the flower previously being nicely laid open to afford facility), he will extract, and very gently touch the apex or summit of the stigma or horns. At times I have observed that some varieties of the Pink and Picotee have a very delicate fine wiry stigma, and that the points or summit of these horns are, as it were, brown and decayed; those with this seeming defect I do not touch, as I never perceived any viscous matter upon them, and therefore dust the pollen directly below the apparent defect, and in all

my crossing I never fail to lodge farina, not only on the apex, but also on the lower part, as much as I can spare, and by so doing I very seldom miss having a well-filled pod of well-fed and ripened seed. In about thirty-six to forty hours after the pollen is applied, the flower collapses in the manner of the *Convolvulus bell*, that is if the cross has taken effect, if not, you must endeavour to fertilize a second time. When glass is kept over the seed-pod, there is no necessity of slitting down the calyx.

THE PANSY.—This is a very neat flower, and great improvement has been made in it for several bygone years, I know not whether from crossing, or only from gathering seed from the very best flowers and first-class varieties, but I am led to believe, unless cross-breeding is resorted to, it has already reached its climax of perfection. In crossing, this summer, I took great care that for yellow grounds both parents were of one shade in the ground colour, white grounds the same, and selfs with selfs without any ray in the eye. My procedure is thus, I select two or three plants of the very best out for seeding, and when the flower is rather less than half expanded, if for the mother plant, I gently remove the lower petal of the flower wholly, which keeps it from being fertilized by its own pollen; from the pollen or male flower I extract the stigma or pointal, and allow all the petals to remain. These flowers I examine with my lens from time to time, and when, as before stated, I observe the stigma in a fit condition, I look out for the pollen flower, and examine if the farina is ripe; if so, I remove the lower petal, in the hollow curve of which, if the pollen is in a fit state, it will be found embedded, near the extreme point from which it was taken out (but be cautious in pulling off the petal, as the powder contained in its hollow is so very light and fine, the least jerk will cause it to rise like thin smoke and fly away); this petal taken to the intended seed-bearer, I commence gently from its very base to guide the apex of the stigma all along the hollow, and by so doing I have never failed to fill the mouth of the pistil with

well-ripened pollen, and if the stigma has been in proper condition the swelling of the ovary will testify that fertilization has taken effect. Or, in the process, you may take a small camel hair pencil and extract the pollen from the pulled-off petal, and apply it to the pointal; but in my practice, I have found the former method the most sure.

THE TULIP.—This is truly the king of flowers, when well grown, and you have good strains of the three varieties, truly gorgeous indeed; but really the rascally cheats and swindling practised by many, in the sale of this flower, have almost induced me to renounce its cultivation. However I shall once more try, having received from Mr. Hepworth, of Leyton, a small assortment, and from his honesty, integrity, and long practice as a first-rate florist, I firmly believe, when I see them in bloom, that I shall not be disappointed. This flower is easily crossed, and when I desire to have a flower fertilized with another *first-rate* variety, or say a bizarre, a bybloemen, and a rose, which makes six blooms, of course I must retain six, and, as I do not show (having at my first outset been shamefully treated by the partiality of the judges, in awarding the prizes, not that I valued the amount of the prize a rush, but it was their judgment, like that which hurt so many honest upright minds, at the Crystal Palace, last year), I reserve six entire flowers, and extract the anthers of every other flower in my bed, before the pollen appears, by which mode I am assured that no other pollen reaches them but that which I apply, besides having, for my own gratification, my flowers a very long time in bloom. From the three flowers destined to bear the seed, I extract the anthers, when green, and cover with a square of glass, as also the pollen flowers, until the farina is fully ripe. When ripe, I examine with my pocket lens the seed-bearer, and if a small opening in the top of the ovary is observable, and the whole apex is covered with a viscous exudation, I extract an anther with my pincers and apply it very gently with a small camel hair pencil. If

it take effect, in a few hours the whole of the summit of the ovary will have assumed a rosy flush, and appear raised, like velvet. In case they should not all have taken effect, I immediately extract all the anthers not used, and preserve them separately from the air, by enclosing each in fine tissue paper. If the condition of the flower is duly observed before applying the farina, a second touching will seldom be needed.

To conclude, Mr. Editor, I would remark that the art of floriculture is degraded from its right position when its sole object becomes the obtaining of new and improved varieties, for the sake of pecuniary gain, or for the short-lived fame and celebrity attending success at floricultural exhibitions. It is well at times to pause amidst the beauties and gems of the florist's garden, and to ask those lovely forms and colours what language they have been commissioned to address to the soul; for without a mission from their Creator they would not have appeared before the eyes of intelligent beings, able to appreciate their loveliness.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

The Secret of Growing the Ranunculus.

BY ALEXANDER OF TYNESIDE.

THE difficulty of growing this gem of all florists' flowers has too often deterred the amateur from attempting its culture at all. Many systems and nostrums have, doubtless, from time to time, been promulgated by growers of the flower, but as all are more or less only suited to answer the purpose of soil, &c., in peculiar localities where it may have been grown for ages, and become, as it were, *acclimated* to those particular spots, I would therefore attempt to generalize the culture by laying down something like a plain,

common sense system, whereby anyone who has never before attempted the culture of this flower,—doubtless, as above observed, this last season, “the bonniest o’ them a’”—may safely presume, without much labour or expense, to succeed, and have a bloom worth looking at for his pains. First then, manure is indispensable. Any kind that is not too crude or too fresh, must be prepared and ready for the bed, which may be made in any *open* situation of the garden. The soil must be dug out one and a half feet clear, the lowest half foot filled with the dung and trodden in, the next half foot with rich soil of any sort that has before being used for cropping vegetables, and the top space, which is to receive the roots, on the first week of February, at the *exact depth of one and a half inches*, neither more nor less, for reasons well known, may be filled up with any common compost that is not too fresh or long out of use, and the whole formed for two or three weeks previously, that all its parts may be properly consolidated. The top space may be pointed up a few times during frosts or breezy weather, to get perfectly sweetened. I find the surface part of the soil used for cabbages the previous year, to answer best. If fresh turfy soil can be had, a good portion of it may also be dug in with the dung, for the lowest stratum of the bed. Now I feel assured that a bed thus made, during the early part of January, and supplied with a few scores of such flowers as Champion, purple edge; Napier, yellow edge; Lochinvar, cream, yellow edge; Sir John de Graeme, straw, red edge; Orestes, rosy tip; old Princess de Wurtemberg, purple edge; Queen; Naxara, self, black; and the following Tyneside or Newcastle varieties, so celebrated as show flowers in that aspiring locality, viz., Rosa Montana, rosy self; Gloom, black; Beauty (Bailey), straw, red edge; Spheroid, extra fine red tip; Miss Prim, straw self; Lady Clementina Villiers, purple edge; Miss Bigge; Quadroona, *alias* Mulatto Maid, purple edge, new; Vindex, large red edge, white ground, with large semi-circular petals; Lochnavar, white, purple mottle; and

the beautiful and unique Man i'th' Moon, straw, brown mottle. A bed, I say, so made and so supplied, will not fail to satisfy the most fastidious taste, the ardent longings of the keenest amateur, and the highest expectations of any lady or gentleman who may put it to the test of a trial.

Having long used the above method of growing the *Ranunculus* with the most prolific success, I can with safety recommend its adoption to one and all—the greatest cultivator or the merest tyro in the ennobling art of floriculture, at once the boast and the pride of the cottage gardener, the man of trade, or the polished aristocratic gentleman.

The Dahlia—its Propagation & Culture.

No. I.

“In the multitude of counsel there is wisdom.”

As the cultivators of the Dahlia will now begin to be on the look out for something about their favourite, in the pages of the *Midland Florist*, we have great pleasure in inserting the following notices, received from various cultivators, and being confident there is no other florists' flowers so universally cultivated, we intend to continue them monthly, in the full assurance that our readers will receive them with the like pleasure.

If a great number are required, the plan adopted should be to make the bed the latter end of March. A moderate heat, that is, about sixty degrees, should be maintained. The roots should be placed on the soil, and carefully covered to the depth of four inches. A little air should be allowed. When the shoots are about three inches in length, they should be taken off carefully, and inserted in pots, containing light soil, and placed in a hotbed of about seventy degrees, they

may then be hardened off, and be placed in readiness for planting out, as the weather permits.—R. EDWARDS, *Nuthall*.

TO BUYERS OF DAHLIAS.—One word of advice to those who have to purchase Dahlias. Give your orders early. Early customers are always better treated than those giving orders at a later day. Half the difficulty is conquered when you get good plants; and with nurserymen, first come first served is the rule. I have several times been sadly out with having late and weakly plants.—W. R., *Ormskirk*.

TO PROPAGATE DAHLIAS.—If you only require a few plants of a sort, it is quite early enough to make your hotbed, which should be carefully prepared. In this place your roots, taking care not to cover the crowns. When the shoots are about four inches long, the roots may be divided and potted singly. They can then again be placed in a little bottom heat, and hardened off, ready for planting.

DAHLIA PROPAGATION.—The best and safest way to propagate Dahlias in a dung bed, is to put the roots in pots, and sink the pots in the dung. Be sure you have a good drainage, and don't cover the crown with soil. In three or four weeks, the heat will have greatly subsided, and therefore, another bed should be got ready, and the pots removed into it. By this means you may propagate Dahlias without injuring the roots, and make hundreds of plants.—JOSEPH COURCHA.

DAHLIAS.—Those growers who have set the roots to work, in hotbeds, must beware of too much heat or damp. Fresh linings must be added when the heat has declined. Pot those off already struck, in thumbs, in light rich compost, and shift others into larger pots as they make root. Beware of frosts.—H. LEGGE, *Edmonton*.

The most successful Dahlias shown in the midlands, last year, were, Duke of Wellington, Amazon, Agincourt, Empress, Lord Bath, Pre-eminent, Lord Palmerston, Grand Sultan, Lilac King, Mrs. Wheeler, Mons. Dugere, Ada, Fanny Keynes, John Keynes, Sir J. Bathurst, Miss Caroline, Annie Rawlings, Sir C. Napier, Cossack, Yellow Beauty (rather flat), Fancy, Admiration, Lady Franklin, Topsy, Baron Alderson, Comet, Mrs. Spary, Eugenie, Duchess of Kent, Flora M'Ivor, Pigeon, Imperatrice Eugenie.—R. EDWARDS, Nuthall.

DESCRIPTIVE LIST OF DAHLIAS,

WHICH WE SHOULD RECOMMEND TO AMATEURS.

- Duchess of Wellington*.—Pure cream, extra fine.
Mrs. Wheeler.—Crimson scarlet, extra fine.
Princess (Keynes).—Bright rose, high centre, and constant.
Lord Raglan.—Orange buff, fine.
Lord Palmerston (Turner).—Reddish crimson, large.
Colonel Windham.—Shaded, ruby with violet tinge.
Lollipop (Turner).—Pale buff, bright centre, very constant.
Captain Ingram (Turner).—Dark crimson.
Lady Raglan.—Fine variety.
Salvator Rosa.—Peachy lilac.
Admiral Duudas (Lawton).—Buff, fine.
Annie (Rawlings).—Lilac, good and constant.
Admiral.—Lilac, good.
Annie Salter.—Rosy blush.
Amazon.—White, tipped with crimson.
Beauty of the Grove.—Buff, tipped with purple.
Beauty.—White, tipped with crimson.
Beauty of Slough.—White, tipped with deep crimson.
Bishop of Hereford.—Large, dark crimson.
Dazzle.—Crimson scarlet.
Diadem.—Dark marone.
Duke of Wellington.—Orange.
Empress.—White, shaded with lilac.
Fanny Keynes.—Buff, tipped with crimson.
Fearless.—Lilac.
George Glenny.—Large yellow.
General Faucher.—Mottled carmine.
Lord Folkestone.—Yellow, tipped with purple.
Lord Bath.—Dark crimson.

- Lilac King*.—Lilac.
Louisa Glenny.—Fine yellow.
Mrs. Rawlings.—Blush.
Mr. Seldon.—Shaded purple,
Mrs. C. Bacon.—White, tipped with purple.
Miss Caroline.—White, tipped with lilac.
Malvina.—White, mottled with rose.
Omar Pacha.—Red scarlet.
Pre-eminent.—Dark plum.
Queen of Lilacs.—Pale lilac.
Ruby Queen.—Ruby.
Rachel Rawlings.—Light peach.
Robert Bruce.—Orange.
Richard Cobden.—Plum.
Sir John Franklin.—Buff,
Richard Whittington.—Ruby puce.
Sir Charles Napier.—Deep scarlet.
Sir Francis Bathurst.—Crimson.
Summit of Perfection.—Purple.
Una.—White.
Triumphant.—Crimson.
-

Annuals—their Culture.

As the early part of April is the proper time for sowing annuals, the following remarks may be found of use to the amateur. There are few flowers requiring so little attention, and yet there are few so neglected, the seed being simply sown and then left to take its chance. When this is the case, no correct judgment can be formed of either the habit or development of the plants and flowers. Annuals require a rich stimulating soil, in order to secure a rapid completion of their growth. The seeds may be sown in patches, round beds, or in whatever form or way the fancy of the sower may dictate, and should be covered according to their size, the smaller-sized seeds requiring very little covering. As soon as the plants appear above the ground they must be kept clear of weeds, Thinning is another great point requiring attention. All sorts which do not exceed one foot in height, and have small leaves and slender branches, may be thinned to twelve

plants in each patch, while those of larger growth may be reduced to six, and in some cases to four plants in the patch. If these little matters are attended to, the reader will find that it will ensure a show of flowers that will render his garden gay, at but small expense and labour.

Perhaps one of the greatest evils is the love of novelty, at the expense of older and better sorts, simply because they are become common. I say grow the old sorts till something new is found worthy to supersede them. I generally have spent a pound in the purchase of new varieties, which have been sown in pots, and received every attention, yet, when in bloom, the greatest part of them were not worthy of the name of flowers. New flowers are mostly accompanied with disappointment, as, with many raisers, novelty covers a multitude of sins. I will give a short list of the best old varieties.

Collinsia Bicolor.—Habit erect, slightly branching, flowers white and pale purple, height one foot, first-rate for small beds or edging of larger ones, stands through the winter.

Sphenogyne Speciosa.—Very attractive, habit erect, slightly branching, flower buff, with dark centre, height one foot.

Nemophilla Insignis.—Blue, with white centre, height six inches, trailing habit, beautiful for beds or pot culture, stands through the winter.

Gillia Tricolor.—Height one foot, habit erect, flowers lilac, yellow, and dark purple, good for edging.

Virginian Stock.—Habit erect, flowers rose pink or white, height one foot; an old favourite, and a neat edging for beds.

Eschscholtzia Crocea.—Colour bright orange, height one foot, requires well thinning.

Clarkia Pulchella.—Habit erect, height eighteen inches, flowers deep rose, beautiful for mixed borders or beds.

Venus's Looking-glass.—Habit branching, height one foot, colour deep purple, with white centre, first-rate for beds.

Nemophilla Maculata.—Habit trailing, colour white, with large blotch of purple on each petal, neat for pots or beds.

Oxyura Chrysanthemoides.—Habit erect, height two feet, colour yellow, edged with white, very attractive.

Clarkia Alba.—Habit erect, branching, height two feet, flower white.

Calliopsis.—The whole of this tribe are exceedingly beautiful, but to succeed well they should be started in a little gentle heat, and planted out in May.

Indian Pink.—Height six inches, habit erect, colour various, pretty and neat, makes a good bed.

Candytuft.—Habit erect and branching, height one foot, colours various, crimson, lilac, white. Many of the readers will most likely smile at my recommending this old-fashioned favourite, but I have grown single plants to sixteen or eighteen inches through, and few plants can be found to excel in habit, colour, or continuation of bloom.

Lobelia Erinus Compactus.—Height four to six inches, flower blue and white, very fine for small beds or edgings. Sown in a little heat, and transplanted singly in May, continues in bloom a long time.

Phlox Drummondii.—Colour various, habit slender, makes a splendid bed, pegged down like Petunias.

RICHARD EDWARDS.

Nuthall.

Hints on the Improvement of Peas.

HAVING devoted much attention to the culture of this luxury, amongst the vegetable tribe, and being requested by several correspondents and readers of your "monthly manual," to give them the most useful varieties, I beg to be allowed to do so publicly, that others may also reap a share in the advantage, if any can be gained thereby. I am anxious to see some improvement in this vegetable, and beg to offer my opinion on sorts calculated to produce, by means of fertilization, a new and improved variety. This is an experiment few amateurs ever dream of, and yet one of such paramount importance, that, if properly attended to, would amply repay the little labour attending such experiments, where parties have a little leisure time on their hands. Nothing in the gardening way yields such an amount of satisfaction as the raising of new flowers, fruit, or vegetables. The easy system of fertilizing might be made more generally useful and beneficial, and for the information of those who may not have had the same opportunity of testing the various systems of sowing Peas, I will give my plan as briefly as possible. I make a practice to dig my

ground generally deep and well, and for Peas, draw a drill, about four or five inches deep, and about six inches wide; in this I place my manure, which I generally take care is old for Pea growing, about two or three inches thick, covering over with soil, so as to leave the drill nice and level, about an inch deep; on this I place my Peas, generally about three inches apart, a double row, one or two sorts four inches apart, and a few varieties closer (I am not an advocate for thick sowing or planting), and then cover gently with well broken soil.

I will now give you a list of what I consider the best out of seventy varieties. I have tried experiments with, commencing first with the early sorts; in doing this, I beg to observe that there is so much similarity in them, that it would save some confusion were they placed under the "limited liability" act, for they must have been keen observers to distinguish difference in the seed or growth of many of them, to be worth while classing them under a dozen different names. I am, moreover, not an advocate for the early sorts, as they are not so profitable as others, only they have one advantage—they are off the ground in time to get a second crop of Celery, Savoy, Turnips, or spring Cauliflowers upon it.

Some parties are careless about growing Peas at all, alleging they can buy cheaper than they can grow them; admitted, but can they buy them so good? I maintain that the buyers of market Peas never actually know what the real luxury of a Pea is.

Sangster's No. 1 is one of the best early sorts, and, in my opinion, stands A 1, is about three feet high, and a good cropper; the pods larger than the generality of early sorts, and well calculated to fertilize with the Champion of England.

Bishop's New Long-podded Dwarf.—About two feet, requires thin sowing, and following the other in quick succession, and would also prove a nice variety to operate upon with the Champion.

Dickson's Early Favourite is a decided improvement on the generality of early Peas, being about ten days later; it runs about four feet, and is covered with a profusion of finely-formed pods, averaging nine or ten Peas in each, and above the average quality of early Peas; a fine variety for early exhibi-

tion, and equally valuable for late sowing. In consequence of its not over abundant foliage it is not so liable to be affected by mildew.

Champion of England is yet one of the best Peas out, and must merit a place for years to come in every garden where Peas are grown; it will bear rather thicker sowing than some of the following, rises to about five or six feet, is very prolific, and too rich for many tastes. This would be a fine sort for experimenting on with *Bedman's Imperial*.

Lynn's Blackeyed Dwarf Marrow.—Rises from three and a half to four feet; one of the best Peas grown, and the most prolific, and approaching the *Champion* for quality, yielding many more, being covered with a profusion of well-filled pods. It should not be sown or planted less than four inches apart, or the crop is spoiled. Its appearance in the seed is not prepossessing, but, having grown it for several years, in fact, ever since its first appearance, I have no hesitation in recommending it as one of the best Peas in cultivation, and would be a nice sort for experimenting on with the *Champion*, or *Green Mammoth*.

Hair's Dwarf Mammoth is also a fine variety, not exceeding three feet; requires very thin sowing. Many parties have discarded this through their own folly of thick sowing, calling it a worthless sort. It is really a good rich Pea, and merits more extensive and careful cultivation.

Knight's Dwarf Marrow is also very good, and requires thin sowing, or, like the preceding, becomes worthless. It is one of the late Peas, and might, no doubt, produce something good, if fertilized with a good early sort, as *Sangster's No. 1*, or *Conqueror*.

Bedman's Imperial is a Pea worth cultivating, where parties are fond of a dry mealy Pea. But, though fine, is not so prolific as several of the foregoing.

Where stakes or rods are plentiful, and ground not limited, I would recommend the following tall varieties:—*Ne plus ultra*, *Waterloo Marrow*, *Tall Green Mammoth* (a large and fine Pea), *Epps*, *Monarch*, *Wellington Marrow*, *British Queen*, and *Imperial Green Marrow*.

Amongst the new Peas of the season are *Harrison's Eugenie*, and *Napoleon*, two varieties, with high characters, the first a white and the latter a blue Pea, of the wrinkled class. Here I must admit I have at times been too sanguine in obtaining the new varieties, and, like many others in similar cases, have often "paid too dear for my whistle."

With these I will close the list, and any information I can give further to any party, I shall be happy to impart. In closing the foregoing few remarks, I would wish to impress upon all amateurs the necessity of sowing Peas in detached rows, and not altogether, or so crowded, that one row becomes entangled with another, and fully one half of the crop is ruined; and also, for the sake of neatness, to remove all pea haulm and stakes as soon as the Peas have done bearing, packing the stakes in some convenient place for another season. Where stakes or rods are scarce, straight deal stakes may be placed about one yard apart on each side of the row, and string run from stake to stake, at convenient heights; the neater system is to have holes bored through the stakes, and the string inserted. If the string be first immersed in boiled oil it will last several seasons, and the stakes if properly housed during the winter, will last from seven to ten years. For small gardens, the latter is the neatest plan, where rods are plentiful, and in the neighbourhood of towns, where gardens are more limited in size than rent. To parties wishing to exhibit a few pods of Peas, I recommend pinching off the leading shoots as soon as two pair of blooms have opened, at the next joint above the second pair, allowing all the support to go to the two pair of pods.

JOHN WALKER.

Winton, Manchester.

Physiology of the Tulip.

[Continued from page 67.]

I AM confirmed in the opinion that the skins, when exhausted, assist in furnishing nutriment to the new bulb, by the fact of having accidentally overlooked some bulbs in boxes, and omitted planting them. Upon taking them out of their holes, I found the blooming roots had produced a new bulb, and in many cases

small offsets. All this was effected without any other nourishment or support than that contained in the skins. I had also a bag containing a few large roots of *Aglaia*, which had gone again into the breeder state. Curiosity led me to open the bag, when I found offsets and a new bulb, which measured three inches in circumference and weighed nearly half an ounce, without the increase. This I purpose to plant, and see whether it will bloom next season. I have every reason to believe that it will. The next important and most mysterious operation, which nature performs, is the transfusion of colouring matter into the petals. This is what we all feel great curiosity to ascertain, but how this curiosity is to be satisfied, I can only suggest, and this suggestion is, that, by the aid of a powerful microscope, a daily examination should be made. It is not a little singular that the stamens are not seen for many months, while the anthers attain their natural size in October, and, as previously noticed, a streak of black is seen up the centre of each stamen. As soon as this operation is performed, the stamens grow rapidly, and, it appears to me very probable, that the colouring matter has been thrown into the various portions of the flower whilst the stamens were not perceivable, they acting as a conduit ; and as soon as this is done, the communication is cut off, and the stamens elongate. The petal of the Tulip consists of two skins and a fleshy substance between them. In a bybløemen this is quite white, so that the outer and inner skins must be perfectly independent of each other, and each must have separate vessels containing colour, or else why should the outside of a flamed flower be much more correct in its distribution of colour than the inside? It will also be often seen that the inside has a greater mass of colour than the outside. The ground on the outside will be seen in beautiful stripes, in the feathering, showing an alternate stripe of colour, whilst the inside, in almost all cases is very selfy, and wants relief by the ground colour. The same remark also applies to a feathered flower. Now another question presents itself.

How does the colour get to the edges? Is it by veins and arteries, similar to those in our own bodies, and all forming a junction, so that the colouring matter may be conducted to its proper place? No doubt this is the true solution, for when in the growing state, it is affected by changes in temperature, similar to the circulation of sap in trees; in frosty weather, it scarcely flows, but is in a stagnant state, while if the weather be warm and genial, it flows without hindrance to its destination. I find too, that in favourable seasons, there are better marked flowers than in those more severe; for instance, last season there were in May frosts equal to January. The colouring infusion is checked, and hence a series of blotches and masses of colouring, wherever arrested in its course, which greatly disfigures the bloom. This will be found to be immoveable, after a frosty night, more especially in tender varieties. The next question arising is this, is the colouring matter in the newly formed embryo bud in October, or at what period does it enter the petals, and from what source? A Tulip bud was partially encased in the foliage until the latter end of April, and upon disengaging the foliage nothing could be seen, yet afterwards, as the bud coloured, so did the foliage which had come into contact, and eventually became as dark in colour as the bloom. Now it is evident that the colour must have exuded from the skin of the petals, or else it could not have left any impression. A Carnation petal is very similar, in every respect, to that of a Tulip, and if not protected from wet, the colours will run. It is most probable that the colouring matter rises from some receptacle in the root, and flows up the stem into the bud, and there divides into two channels, one to supply the outer portion of the bud, and the other the inside. If this were not the case, there would not be more colour in the inside than the outside, and if there were veins in the fleshy intervening substance, it would be naturally supposed, that the colour would be equally distributed, instead of the contrary. In some flowers large masses of colour are

found on the centre of the inside petals, as in Catafalque Superieure, *alias* Rising Sun, which after a few days exposure becomes nearly a self. I once noticed a very peculiar circumstance which has a bearing on the case. A San Joe, *alias* Captain White, when first opened was nearly a yellow self, but in a few warm days it became pretty generally feathered. This, no doubt, arose from the colouring matter not having flowed into the receptacles at the proper period, very likely from the state of the atmosphere.

That the stamens are not conductors of colour is very evident, from their being the same colour throughout (unless a small aperture can be seen with the microscope); this colour in a bizarre is yellow, while in a rose or bybloemen it is white.

The tinge on the top of the stamens arises from the fecundity of the pollen, which is very abundant in some varieties, and by heat becomes semifluid, and flows down the stamens like perspiration, gradually becoming weaker in colour, until it disappears. To support this view, it will be found that the purest stamens are found only in those varieties having scarcely any pollen. I trust these few remarks will induce some talented individuals to take up the subject, and that the readers of the *Midland Florist* will be privileged with their experience.

JOHN SLATER.

Cheetham Hill, near Manchester.

Ruins and Rockwork in Gardens.

As there is scarcely any ornament in British gardens more beautiful than well-constructed ruins and rockwork, I take the liberty of offering a few remarks on the advantages of consistency in the means by which we are to cultivate the beautiful plants which are adapted for such buildings. Many people adopt sufficient means for the cultivation of Alpines and Ferns

without the smallest consideration of their appearance in the general feature of the place. If a man wheeled in a few barrows of stones, or burs, or clinkers, and shot them down on a sort of bank promiscuously, it would be a good imitation of the contrivances resorted to in many gentlemen's gardens; but the elegant plants which require a dry position deserve that it should be made a feature worthy of all the other features in the garden. Now, there is nothing more picturesque than the imitation of ruins, because there may be the upright rugged walls, and the heaps of the fallen stones. The tops of the remains will grow all the subjects that are usually found in such places. The upright sides may be built with small pockets to hold things that will grow, and do grow from the fissures of decaying buildings; and those which require more nourishment can be planted in the vacancies left among the imitation *debris* of fallen buildings. No one ought therefore to be content with mere heaps of rubbish as examples of rockwork. To be effective, a ruin should be a portion of a large building; rather than appear to be the entire site of a small one. Let it imitate the fragment of a wall, as if it were the only remains of a noble building crumbled to decay, and show a portion of a doorway or a window; let it be massive, that the rugged top may give a breadth of a couple of feet, and no portion of it flat, but ragged, and almost step-like. In building this, let pockets be left to hold soil sufficient to grow a good Fern here and there, as a variety among the plants that are out of ordinary reach. The fallen fragments may be imitated to any extent, but in every part there should be holes with drainage, that any kind of plant may have room to vegetate, because every species of rock plant can be accommodated. Many plants will grow on the ledges of the upper ruins, such as Stone Cress, Mosses, Lichens, and ordinary Wallflowers, Digitalis, some of the Dianthus tribe, small Ferns, &c., and in the pockets of earth provided for in the building, plants of more importance may be grown. To ensure a variety of subjects that we know will grow almost

anywhere, we have only to mix the seeds of many perennials with a few barrows full of earth; mix it all up like mud, and lay it upon every ledge, and in every crevice that will hold it. The rain will wash some off, but enough will be left to give a natural character to the vegetation. The subjects to mix are Wallflowers, Foxgloves, Pentstemons, Columbines, Violets, Pansies, Daisies, Veronicas, Aconitums, &c. The permanent plants, to place in the pockets, or pots as it were, are Lilliums, Ferns, Christmas Roses (*Helleborus niger*), Snowdrops, Ivy, *Jasminum nudiflorus*, China Roses, &c.; while reserved places, near the ground, will do for summer dressing, with Verbenas, *Tropæolums*, Alpines, and half hardy things, that may be renewed every spring; and for the winter, be supplied with something green, as soon as the summer beauties have departed. Many of the subjects mixed with the soil put upon the tops and all the ledges will germinate where they are placed, others will be washed down the walls, and lodge in crevices, so that a year will furnish it as well as need be. But great pains must be taken to pull up all noxious weeds, which never fail to come strong enough to choke the better things, if neglected, for these, if allowed to grow, will seed faster than anything. Chickweed, Groundsel, Plantain, Dock, Shepherd's Purse, all bitter enemies to everything else, would, if allowed to seed, spoil everything. With regard to the building of such places, there are bricklayers who only want to be made to understand what is required, and they will do it. I have, with the help of a clever man, done plenty of it, and as examples of rockwork, I might refer anybody to the Surrey Zoological Gardens, to Cremorne Gardens, or to Mr. Leaf's celebrated garden. One author has made his book a vehicle for puffing some Mr. Snooks as the best artist in rockwork that he knows, but people who read the book ought to be aware that the writer knows very little of the world. I do not know but that his Mr. Snooks, or Tomkins, or Jenkins, or whatever his name is, may have executed the best rockwork the author has seen, but if he have

not seen the best, he only misleads people. I will venture to assert, that however much he may know about Ferns, he knows very little of what can be done by some artists in rockwork. A gardener of taste, with a few loads of burs, which are the vitrified lumps formed with bricks overburned and run together, can very easily build a place to please himself; and if he should not, I shall be very happy to tell him how to go to work. Meanwhile, I am, &c.

ARGUS.

Fruit Culture.

No. II.

IN all establishments of any pretension, we have numerous structures for the cultivation of fruits, but, amongst modern inventions, there are none so useful to the amateur as the orchard house, which was brought into existence by that excellent fruit cultivator, Mr. Rivers, of Sawbridgeworth, Herts., to whom we are also indebted for much valuable information on fruits, and for the introduction of many new varieties, both of his own raising and from different parts of the world. The orchard house is for protection from severe spring frosts, such as we have had of late years. Mr. Rivers's first houses were erected against some old Yew edges, which formed the back, and these houses were found to answer their purpose to a certain extent, in the cultivation of the more hardy fruits, such as Plums, &c.; but Mr. R.'s later erections are constructed with boarded sides. The first cost of such houses certainly would not be much, but I think they will eventually be found dearer than properly built brick and mortar walls. Most orchard houses hitherto erected are without any heating apparatus, which I also think is false economy; for the plants in such structures must naturally be forwarder than those out of doors, and the frost has

much power in a house of this sort, if means are not taken to keep it out; but it must be borne in mind that orchard houses are a new invention, and far from that perfection which we may expect they will ultimately reach. My idea of a good house is that it should be built span-roofed, say twenty feet wide, and as long as the proprietor pleases. The height from the ground to the eaves should be about six feet, the lower three feet of which should be of brick, and the upper of glazed sashes, made to open, for the purpose of ventilation. A three-feet border, in which trees may be placed, might run round the house; and the path should be three feet wide, which would leave eight feet for the centre border. The flue or hot water pipe should be placed on or in the path. It has been the practice hitherto to grow the trees in pots, several nurserymen having prepared many trees well furnished with bloom buds for that purpose, and thus secured a crop of fruit the first year; but how this method will succeed is at present a matter of uncertainty. For my part, I am very doubtful of its propriety, as I fear the trees will not continue to produce good crops many years, if grown in pots, while, if planted in the borders, success would be certain, as they may be kept dwarf by proper pruning and removing and root-pruning every two or three years, which might be done without at all injuring them. Another means of keeping the trees dwarf is the proper selection of stocks to work the different fruits on, as, for instance, the Pear on the Quince, the Apple on the Paradise, the Cherry on the Mahaleb, and the Plum on the Black Thorn. Most fruits may be successfully grown in an orchard house, including Apples, Pears, Peaches, Nectarines, Plums, Apricots, Grapes, Figs, and Strawberries, besides what may be had in the way of choice flowers and vegetables; and thus it will be seen that the amateur possessing one of these structures may command a good variety of fine fruits at but little expense. With regard to the management of the orchard house, every attention must be paid to proper ventilation, which is most essential,

and provision must be made for admitting air both by the side and top lights. If the side lights can be all removed, sufficient air may be given without allowing cold draughts, by keeping them closed on the side the wind would enter. Watering must also receive due attention, as the trees might be soon damaged either by an excess of moisture or the want of it. Another important point is to keep the trees properly pruned and the fruit properly thinned, removing all that is not required as soon as it is set, before it begins to damage the trees. As it is impossible to give full directions for the management of the different fruits in a single article, each variety shall be touched upon as these papers proceed.

WILLIAM SHIPLEY.

Heywood Gardens, Westbury, Wilts.

Dioscorea Batatas.

THE cultivation of one of the most valuable additions to our culinary vegetables seems to me to have been sadly neglected. A root containing so many useful and excellent qualities, very productive, and so easy to cultivate, must deserve a little more attention. If forty-two and a half pounds can be grown in eighteen months, from less than a quarter of an ounce to begin with, which is the result of my own experience, the roots varying in length from nine to thirty-nine inches, the heaviest root weighing twenty-four ounces, surely that ought to induce others to persevere in its cultivation. Those who have the opportunity of growing it, and will not give it a fair trial, must be blind to their own and their country's interest. I think every encouragement ought to be given to bring it into general cultivation, as I believe it would prove a great acquisition, and the best substitute for the Potato. If I grow it another summer, as I hope to do, I believe I shall

find no difficulty in furnishing my worthy employer's table with a good dish, once a week, for the next twelve months, and all from the small beginning stated above. I should recommend planting them the first week in April, one foot apart, on deep light ground; or, if the subsoil is cold and stiff, plant them on ridges, the same as Mangold Wurtzel. One foot gives ample room for cleaning, and taking up the crop in autumn. No earthing, like the potato, is necessary; you have only to keep them clean through the summer, and the first sharp frost in autumn will tell you when to take them up.

If these few remarks should be the means of inducing others to grow this useful esculent, I hope they may be successful; it will do me good to hear of it, and I shall feel glad that I have so strongly recommended this new and valuable introduction, the Chinese Yam.

J. SIBBON,

GARDENER TO R. C. L. BEVAN, ESQ., TRENT PARK,
EAST BARNET, HERTS.

PERSONAL NARRATIVE,

WITH

Sketches of the Flora of South Australia.

BY J. F. WOOD, F.H.S.

No. I.

[Continued from page 96.]

THE road was now as level as a bowling green, waving with gentle undulations amongst the most luxuriant and beautiful vegetation. The trees were principally Cupresses (*Cupressus Australis*), the young specimens of which are of a peculiar pleasing green, and grow in the style of the upright evergreen Cypress of British nurseries, except that the upper shoot bends slightly over, in the way of *Cedrus Deodara*, but, like that tree, straightens as it grows. The older trees assume a more pinelike habit, looking, at a distance, like Spruce

Firs; in fact, the settlers call it the Native Pine. Interspersed with these were numerous varieties of Mimosa, bending beneath luxuriant masses of golden yellow flowers, and a sort of Gum tree, called here the Mallee. Among the thousands I passed, I saw none with stems thicker than my arm, whilst many were no larger than a walking stick, and growing in stools, like English coppice wood. The taller trees were very beautiful, but the undergrowth was much more so. It consisted of many handsome shrubs in full flower, that, in all my explorations and wanderings in the colony, had not previously come under my notice; in fact, I think the botany of South Australia has been but indifferently examined, and there are many plants which would be valuable ornaments to the conservatories of England. One little plant, about a foot high, was covered with the most lovely blue flowers, the size and shape of *Potentilla fruticosa*. A great profusion of equally beautiful purple flowers, with a white eye, were produced by a leafless climbing plant, which had twined its green wirelike shoots round the branches of a neighbouring shrub, and crowned its supporter with its attractive blossoms. There was a low dense shrub, covered with flowers of the most snowy whiteness, and on examination, they looked like miniature Horse Chestnuts, with a solidity about them like ivory. Masses of the large pink *Mesembryanthemum* matted the surface beneath these, and hundreds of things equally curious and beautiful were interspersed. Among plants which I recognized from their "family likeness," were two or three species of *Grevillea*, *Lechenaultia*, &c., both specimens and seeds of which I hope to obtain at a more favourable opportunity. As we went on, we occasionally came out into large open spaces, of twenty, fifty, or a hundred acres, of grass land. Following the route, we again entered a forest similar to that just described; in fact, I could compare it to nothing but highly embellished shrubberies and plantations attached to some nobleman's demesne. The rain still continued to fall heavily, it was also getting late in

the afternoon, and as I had to return on business, and to see to the men at home, the ladies, Mr. E., and his son intending to stay several days, I thought it best to turn my horse's head homewards. The road was bad enough in the-daytime, and as Mr. M. and myself had not been on it before, it was expedient that we should get past the worst of it whilst it was light. Wishing our friends a more pleasant termination to their journey than its commencement, we set off at a rattling pace; but, after riding a short distance, a beautiful terrestrial Orchid caught my eye, and I was off my saddle in a twinkling. It was one of the *Ophrydea aranifera* (Spider Ophrys). It was a prize, and, "in spite of wind or weather," we walked our horses and gathered specimens, till we reached the verge of the scrub, where we entered. The storm grew more uproarious, the rain beating violently in our faces and finding its way through button holes and crevices. We galloped to the deserted miner's hut, and though the rain dripped through the shingles which formed the roof, and the door was gone, we were thankful for "any port in a storm." We got our horses inside, pulled off our wet upper clothing, and as there was a chimney, with a hearth, and fortunately a few dry twigs, with logs outside, we struck some matches, and soon had a fire; but the chimney was so wide and low, the smoke would not go up it, so perforce went out at the door-way. We made the best of it however, for, squatting on the ground, on each side the fire, we were not quite stifled, though we had to go every two minutes to the door-way, to take breath. Our pockets now turned out some "prog," and we made a hearty meal, solacing ourselves afterwards with our pipes, and feeling that bad as matters were, they might be worse. M. sung a song, and certainly his voice, not over melodious, might have "astonished the natives," had any been within hearing. After two hours detention, the rain abated, and we started like giants refreshed, galloping where we could, and walking where we could not. When dark, as we passed a squatter's hut, he halloed to us to come in and have "a shake-down" for the night, but, thanking him for his hospitable

invitation, we spurred on, and reached home, tired and weary, about two hours after sunset, fully satisfied with the pleasure we had derived from visiting the Murray Scrub.

The China Aster—its Culture.

THE China Aster, although it will come to perfection in the open air, requires the assistance of a hotbed, to bring the plant forward, at the earlier part of the season. The first week in April, let a hotbed be prepared, and covered with a few inches of mould; when of a proper temperature, scatter the seed with an even hand, and sift about a quarter of an inch of mould over it. When the young plants appear, let them be thinned where they come too thick, and from this time the glasses should be carefully raised more and more every day, that the plants may be habituated to the air. They are to be planted out from this bed into the open ground, though a well chosen spot is of great advantage. Much success depends upon hardening at the very first period. When the plants have attained six weeks' growth in the second bed, let a fine warm spot be chosen, a bed dug eighteen inches deep, and carefully marked lengthway and across. If a shower has not fallen, they should be well watered previous to a removal. In this bed they will require but little care, except at all times keeping clear of weeds. When the plants show bloom, there is usually one flower upon the summit of the main stem larger but less double than the others; this should be taken off as soon as it appears, which will greatly increase the bloom upon the other parts of the plant. Care must be taken to remove all flowers as they fade, except those reserved for seed, as it will add to the succession of bloom. By this method and good watering the plants will remain beautiful until the frost cuts them off. When the seed is ripe and hardened, cut off the heads carefully, and spread on a shelf, covered with paper, in an airy room, placing them at a good

distance from each other; turn them at least once a day, and when they have lain a fortnight knock out the seeds and spread them out, turning them often. After lying for a week tie them up in a paper bag, when they are ready for stowing away. There are few handsomer plants than a well-grown Aster, covered with flowers, but for everyone of such we see a thousand distorted and dwarfy, all owing to mismanagement.

JOHN THOMPSON.

St. Lawrence, Jersey.

Hints on Bedding out.

As the time for planting the bedding out plants, where they are to form the great display of the flower garden, is fast approaching, it cannot be too strongly urged upon those who have this work to do, that system in arranging the colours is absolutely necessary to complete success. It ought to be no satisfaction to an amateur or professional gardener that his grounds look well, while it is plainly seen they might have looked better. Those who have paid attention to this part of the gardener's business, must have often noticed that different artists produce very different effects with the same plants, and this will be found to arise more from the judicious arrangement of the colours, than from any other cause. A flower garden may be richly furnished with plants, but be very ineffective, if the colours are badly arranged, and unfortunately this subject receives very little attention generally, although nothing can be more important. Thus, what can be more beautiful than some of the yellow *Calceolarias* or white *Verbenas*, but place the two sorts together, and the pure white of the *Verbena* is destroyed. For producing brilliant effect in masses, reject particoloured flowers—such are never effective. Use pure and decided colours, such, for instance, as pure white, scarlet, deep purple, bright yellow, good blues, &c.; also take care

not to mix plants which are of a doubtful duration when in bloom, with those of a more permanent character. The prevailing system of edging beds with contrasting colours imparts a highly interesting feature; for instance, a bed of scarlet *Geraniums* edged with white *Alyssum*, or *Manglesii Geranium*, with the flower buds taken off as they rise, or the yellow *Calceolarias* edged with blue *Lobelias*, have a good effect. Those which are in close affinity kill each other.

J. BURTON.

Oxton Gardens.

The *Calceolaria*.

As we are to expect that, in a short time, our greenhouse favourites will be almost extinct, I beg to offer a few remarks with reference to them. Within the last two or three years, a class of *Calceolarias* has been improved upon, and has started up, which bids fair to outrival the greenhouse kinds, at least so I am informed. I allude to the bedding or shrubby kinds. While I readily admit the adaptability of some of them for greenhouse decoration, I would also remark, that the raisers of seedlings are losing sight of the great point of attaining to perfection, with regard to our flower gardens. Improvements in any class of plants for bedding purposes are eagerly sought after. Those who are fond of the *Calceolaria*, for bedding, try the new varieties, and find that not one quarter of them answer the purpose. No one expects that the large-flowering kinds will answer for bedding, on account of not being able to stand the wind and rain, and as the other class have small flowers, they are thought but little of in the greenhouse, excepting perhaps some few. I see no cause for fear. Cultivators of *Geraniums* were startled in the same way, some years ago, when the fancy varieties came out, a few individuals, excited for the moment, having told us that the fancies would beat the others out of the field; but we find them still holding

the second place, and with little chance of their getting higher. I believe it will be the same with Calceolarias. It is generally admitted, that the flowers of the large kinds are far in advance of the others. We have all colours and varieties, in stripes, spots, and beltings, which I think it is impossible for the other class to attain to, and if they do, we are no forwarder than at present. Some persons may think that the large-flowering varieties do not possess that shrubby habit which is so much in favour of the other class. I beg to correct such an opinion. I have for the last two years paid particular attention to the hybridizing of the Calceolaria, and have endeavoured to procure seed from varieties that have shrubby habits, flower stalk from six to twelve inches long, large head of bloom, and requiring but one stick to support the stem, and I have succeeded in getting varieties which I should not hesitate to exhibit against any shrubby variety grown, if the schedule required shrubby varieties. I can not, therefore, see why it is presumed that the large-flowering Calceolarias will not be grown. With the new class, a great sameness of colour prevails, and in many instances the flowers are very coarse. I am strengthened in my opinion, by the fact, that the sale of the seed or plants does not diminish, having sold every seed I could save last year, and was obliged to buy in a large quantity from one of the best raisers in England. I hope these few hints may be the means of causing us to look well at the good qualities of our old friend, before we quite discard him from our greenhouses. We cannot well do without either class, and there is yet room for improvement in both.

JOHN DOBSON.

Woodlands Nursery, Isleworth.

ROSES are to be exhibited, in July next, at Sleaford, *free from leaves and buds*. Surely such conditions can never have been suggested by a rose grower, and few, if any, we should hope, will be willing to abide by them. The aim and duty of the florist is to wait upon nature. Not to assume the mastery—to tend and to train, but never to mutilate. Poultry fanciers would be indignantly astonished, if invited to divest their favourites of their tails, before bringing them to the shows of our “Nottingham Central Association;” and why are

we to deprive the Rose of its plumage? The innovation is to be the more regretted, as detracting materially from the praiseworthy efforts, which have been made at Sleaford, to raise a floricultural spirit in the neighbourhood. It is only just to state, that the secretary is by no means responsible for this remarkable regulation.—H.

The National Tulip Show.

TO THE MANAGERS OF THE COMING NATIONAL TULIP SHOW AND
TO ITS MEMBERS GENERALLY.

IN the March number, our worthy friend, Mr. Lymbery, has given an article for the guidance of secretary, committee, and members generally, to which I should say but few will object. So far as Mr. L. has gone, I think the matter cannot be mended; but a word or two might be said on the hint he gives as to the choice of proper men for judges, which certainly is one of the most important points to be considered. Mr. Edwards, in his almanack for this year, taxes the whole Tulip community with ignorance, in not knowing, or being able to define what are the properties of a fine feathered or flamed Tulip. So far Mr. E. may consider himself all right, and perfectly safe, providing he takes as a sample the judgment of the flowers exhibited at the Crystal Palace, last May, or even those shown at the Regent's Park, two years previous. The show at Cambridge I did not see, but worse judgment than on the occasions named, I never witnessed in all my experience, and, by what I have heard from those who saw the Cambridge exhibition, the judgment was equally bad. However, I have no wish or desire to hurt the feelings of any individuals belonging to previous affairs; but I hope, this year our north and south country friends will choose men who are able to go through the work of judging the flowers according to merit, and not give Mr. Edwards the chance of asserting the same thing in his almanack for 1858. For thirty years past we have been disputing the properties necessary to constitute something like perfection in the Tulip, and in my opinion, sufficient has been said and written long ago, to make an end of the matter. The *form*, *perfect purity*, the style of *marking* as feather and flame, have been well defined and pretty well acknowledged, therefore, I should say, who but a fool can err in judging the flower. Some judges are too hasty in passing their opinion. When they see a stand of big overgrown blooms, they have not patience to look through the stands which happen to have smaller flowers, but at once, place the large blooms first, though perhaps the stand does not contain three good flowers, as regards real merit, while some stands of rather smaller flowers, possessing nearly every property requisite, are shut out altogether. So long as that sort of censorship exists, no satisfaction can be given, for it is well known that the north country growers cannot compete with the southern, in bringing out their flowers full size. Therefore, size ought to be about the last property, instead of the first, to judge by. Size ought not to count at all, or at least no further than to give preference to a stand of large flowers, when they are equal in every property with a stand of rather smaller blooms. I trust these few simple remarks will not be taken amiss. I give them with the best of feeling to all sides, and I hope the coming show will be the best we have yet had, as regards fine flowers, judgment, and a first-rate

gathering of true-hearted florists from all parts of the country, north, south, and the midlands, as well as from our sister isle, Scotland, where many true florists dwell. With best wishes to my friends and florists all, I remain, &c.,

JOHN HEPWORTH.

Hendries Gardens, Lea Bridge Road, N. E. London.

Notes for the Month.

AURICULAS will now begin to show their flowers, and will therefore require to be protected from the heat of the sun, which hastens their decay. Give as much air as possible, otherwise the flower-stalks will draw up weak. Where seed is desired the plants should be removed into the open air as soon as they are fully blown, and placed where they may have the morning sun and free air, without which they rarely produce good seed. The increase should be taken off and planted in the shade, watering sparingly. Seedlings should be protected from the sun and plentifully watered.—T. GIBBONS, *Bramcote*.

AZALEA INDICA.—Few plants are more deservedly worthy of attention than the Azalea, and few are easier of cultivation. Fancy the display a dozen plants make at this season, three feet each way, and of different colours. They should be carefully supplied with water and manure water. Remove all flowers as they decay. Young stock-plants should be introduced into a gentle heat, to cause them to break more freely.—H. BRASSINGTON, *gardener to Robert Holden, Esq., Nuthall Temple*.

CAMELLIAS.—Any plants which have done blooming and require repotting should be at once attended to, before the young shoots begin to swell previous to their spring growth. The compost to be used is equal parts of loam and peat, with one-sixth part of silver sand. Before repotting, the plants should be allowed to become rather dry. Turn the plant out of the pot, and if the roots are regularly spread around the ball, it is in a fit condition for operating on. The ends of the young roots should be carefully released from the old ball, and plenty of drainage should be given. Give water sparingly, till they commence growing, when syringing will greatly add to their progress. Attention should be paid to these points, as much depends on their growth at this season to ensure a good bloom.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling*.

CINERARIAS.—The greenfly will, if allowed, cripple every flower before it opens, therefore slightly fumigate once a week. At this season of the year the plants require abundance of water and daily attention. Our remarks of last month, with reference to seed sowing, may still be applied. The Cineraria will be coming in its true character, and with seedling raisers it is a very interesting time. Preserve order and cleanliness at

all times. Regulate such shoots and flower stems as require it. A little shading will be beneficial on bright days.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

CUCUMBERS.—The directions of last month are applicable to this, as regards paying attention to the linings, turning and adding fresh dung when the heat is on the decline, giving air at all favourable opportunities, &c. Cut out any superfluous shoots, attend to stopping and training those left for fruit-bearing. If the plants appear to require water, give it early in the afternoon of a mild sunny day, shutting up the frame directly after.—T. BURTON, *Orton.*

ERICAS.—Any requiring repotting should have immediate attention, avoiding too large pots for the less vigorous varieties, but the free growers should have plenty of room. Do not elevate the collar of the plants higher than the rim of the pot, and allow room for water. Give air freely, avoiding draughts. Tie out and carefully arrange the shoots. Those near blooming must not be allowed to want water.—**EPACRIS.**—Tie out the branches, and arrange as they progress, nipping out the centre of each shoot, to induce them to throw out laterals. Plenty of air should be given.—F. FRETtingham, *Beeston.*

FRUIT GARDEN.—Young fruit trees planted this spring should be watered in dry weather. If the leaves begin to curl, syringe with tobacco water, but this must not be done in the heat of the day nor late in the evening. Towards the end of the month, wall-trees and espaliers should be regularly looked over and trained. Thin Apricots when too thick, as soon as possible. Look over Vines against walls, rubbing off all small shoots where two are produced from one eye, and nail the branches to the wall. Some attention is required to shading Peaches, Nectarines, and Apricots, as one frosty night will do much damage; yet shading, when practicable, should be avoided as much as possible.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

FUCHSIAS.—The early-blooming plants should be in the blooming pots, and should be well attended to with water, and occasionally syringe over the leaves. A little manure water may be given, as soon as the plants get established in the pots. The second lot of plants should also receive a shift, say from a six-inch to an eight-inch pot, while later plants may be shifted from three-inch to six-inch pots. They must not be allowed to stop growing. Give air at favourable opportunities. Put in cuttings for late flowering; they will make nice bushy plants by the autumn. Repot such plants as require it. Attend to tying up the shoots, and watch the greenfly.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—This department becomes more interesting every day, and the plants will require more careful attention, in regard to repotting. Do not neglect this point, but attend to it at once. Cinerarias, Camellias, Double Primroses, Azaleas,

&c. will be looking gay, and require a good supply of water. Shade when the sun is hot, to prolong the flowering. Manure water, supplied twice a-week, will be found beneficial. Give air freely, and attend to tying and training all plants, especially climbers. Keep clear from greenfly, and remove everything unsightly. Maintain at night a heat of from fifty to sixty degrees.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling*.

KITCHEN AND COTTAGE GARDENS.—The directions for cropping given last month will equally apply to this, especially during the earlier part. Cauliflowers that have been preserved during the winter, and those raised in frames, should be planted out. Peas, Lettuce, Turnips, Spinach, Radish, and Parsley may still be sown. Celery should be transplanted as early as possible. Earth up and place rods to Peas. Keep the whole of the crops clean from weeds. Winter Potatoes should be attended to, as much of success in the crop depends on early planting, both as regards quantity and quality.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempsill Hall*.

PANSIES.—Remove dead foliage, and stir the surface of the soil of those in pots and the beds. Peg down the shoots of such as have been loosened by the wind. Watch for slugs, and remove side shoots. Give air night and day to those in frames. Weak liquid manure water given to those in pots will greatly assist them. Plant out seedlings without delay. Sow seed for blooming in the autumn.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

PELARGONIUMS.—Many of the May plants will be fast throwing up their trusses, and some will be in flower before the month is out. It will be very necessary therefore to prepare the shading at once, and especially where the house is glazed with sheet glass. By this means the flowers are kept much longer in perfection, and the colours of many varieties are improved by it. I use canvas at about fourpence-halfpenny per yard. Before the plants come into bloom, they should be fumigated two nights successively, choosing a still night; after the plants have been fumigated, they should be well washed with a syringe, using, if possible, rain water. When a succession of flowers is required, shift a few plants, the beginning of the month, and stop them back towards the latter end. They will flower about the middle of August. After the plants have started well at the eyes, keep them in a cold place; the north side of a house will do well for them, and they must be protected from heavy rains. Manure water as last month. Look to the shoots and see that none are likely to break off for the want of tying up, but, at the same time, use no more sticks than are absolutely necessary.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

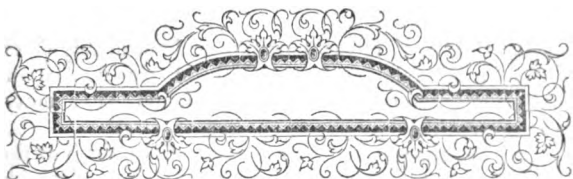
PINKS.—Proceed at once to make good all vacancies in the bed. Examine your labels and see that the numbers are legible; neglect in this respect often causes confusion, especially when

wooden tallies are used. Seize the earliest opportunity in dry open weather for top-dressing. In this operation remove as much of the surface earth as you can without disturbing the fibres.—GEORGE WELLS, *Florist, &c., Woolwich.*

ROSES IN POTS.—Follow the directions given last month, as to watering, fumigating, &c., and as the sun gets more powerful give plenty of air, and shade those in bloom. Young stock, as they fill the pots with roots may be shifted, and towards the end of the month plunge them in a sheltered rich border, giving them a top dressing of well rotted manure. Cuttings of any of the Teas and Chinas that have flowered may be struck in a gentle bottom heat.—**OUT DOORS.**—Pruning should be finished early, and if, as sometimes happens, any of the standards have died and must be replaced, lose not a day, and before planting look well to the spot and see that it is well drained. It would be as wise to cork up the holes in your pots before placing your plants in them, and as reasonable to expect them to grow, as to make a hole, two or more feet square, in a lawn, or elsewhere, all solid clay, or nearly so (which is often done), and shoot a barrow full of prepared soil into it, and then place the Rose, and expect it to flourish. It makes a few weak shoots during the summer, to be killed in the winter, and then the plant, not the place, is condemned.

STRAWBERRIES.—The spring planting must be finished this month. On light soils, and where it is desired to have extra fine fruit, the space between the ridges should have a layer of cow dung, at least an inch thick, spread regularly with the back of the spade, and then covered over with long litter from the stable, or thatched thinly with straw, strewing a little chaff about the plants, and watering at the same time to make it lie. Tanner's bark or old leaves may be used as a substitute for the cow dung. These should be laid on to the thickness of an inch and a half, and should also be covered with litter. For strong land, stable litter is the best, though a thin coat of tanner's bark will do very well. The cow dung, &c., prevents too quick evaporation, keeping the roots cool and moist, and the rains or waterings will always carry some portion of it to the roots, and when covered with a little straw, everything about the beds will be as clean and sweet as can be desired.—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*

VERBENAS.—If due attention has been paid to last month's directions, an abundant stock of good plants will be raised. Keep them growing, by shifting into larger pots, that you may be able to cover your beds as soon after planting as possible. Many persons plant out into the beds the middle of April, but the first week in May is quite soon enough. Keep the plants free from greenfly. Give air freely, and do not let them flag for want of water. Any signs of blooming should be at once pinched off, in order to strengthen the plants. —SAMUEL HUMPHREY, *gardener to T. B. Charlton, Esq., Chilwell Hall.*



MAY.

A FEW USEFUL HINTS

On the Preservation of Growing Plants, &c.

GOOSEBERRIES I will begin with, although too late for this season. These are much injured in some localities by the sparrow and titmouse taking out the young buds, especially in the winter, when their food is scarce. A certain preventive may be found in running three or four lengths of *black* worsted over the tops of the trees.

CURRANTS the same. I have seen bushes of the above completely destroyed by these depredators, yet I never destroy them, being of opinion that they are useful during the season, by devouring myriads of insects.

PEAS also suffer much as soon as they break ground, from the same gentry.

RADISHES may be placed in the same list. Another method may be used for these. Damp the seeds a little, and rub some dry red lead amongst them, before sowing.

BEANS I have had taken up by rooks and jackdaws, even the day after they have been planted, so fine is their scent after Beans. A few strips of rags, drawn through melted sulphur, and placed on sticks, at intervals, will preserve these safe; or a few wood shavings, dipped in blood, and thus exhibited, will answer as well.

ONIONS now require care, for as soon as the plant has progressed into two leaves, the saw-fly will be busy depositing its larvæ between them, whence it makes its way down to the roots, and then there is no cure. To

prevent this, early in the morning, or immediately after a shower of rain, dredge a little of the flowers of sulphur over the beds. This I have found, after many experiments, the only one to succeed.

TURNIPS are very liable to be eaten off by the Turnip saw-fly, a little nimble insect, jumping from plant to plant, like a grasshopper. I have seen rods of land which have had to be sown over again from this cause, whereas the smallest portion of the flowers of sulphur dusted on them would have prevented the disappointment.

I will now conclude my present observations by referring to that disease of the Brassica family, known by the term clubbing, which is nothing more nor less than the roots becoming the prey of insects, more frequently the case in old tilled soils. I have found the scrapings of well frequented turnpike roads to be effectual in this case, but there is nothing so certain to prevent it as the application of the superphosphate of lime, as recommended in the March number of the *Midland Florist*; and if a "Subscriber," who wished for further information respecting the superphosphate, will send his address, I shall be most happy to render him all the aid I can.

JOSEPH BURGESS.

Knutsford.

Analysis of Gooseberries of 1856.

FROM THE "GOOSEBERRY GROWERS' REGISTER," BY MR. R. MOORLEY,
NEWCASTLE-UNDER-LYME, STAFFORDSHIRE.

THE following analysis exhibits at one view twelve of the heaviest Gooseberries in each class, weighed in at the different meetings throughout England, the number of prizes each variety has won, the number of times each has been twenty pennyweights and upwards, the heaviest weight attained, by whom grown and where grown; also twelve of the heaviest seedlings in each class. The year 1856 has been a light year, as may be seen by reference to the analysis for several previous

years. It will be observed that London still holds the premiership in the red class, and appears likely so to do for some years to come, although there are several of the sorts sent out since 1850 that appear destined to play their part, viz., Clayton, Speedwell, General Moore, Lord Stanley, Bedford, Southwell, and Mr. Chambers. In the yellow class, Catherina still retains the lead, although Leveller is making rapid strides towards the top. Stella, Criterion, Australia, Lord Scarborough, and Heroine, are a few of the new ones that are coming up. Thumper is at the head of the green class, where it has been many years. Queen Victoria, Turnout, General, and other sorts have been grown well up, but have not arrived at the top of the list; and now Gretna Green has gone up to try, though with what success time only will tell. In my opinion, that excellent variety, Rough Green, will go to the top of the class, having won, last season, as many first-class prizes, and twenty-five stewards' and maiden prizes more than Thumper, although Rough Green was only weighed in a hundred and twenty times, whilst Thumper was weighed in two hundred and fifty-eight times. Telegraph, Lofty, Greenock, Stockwell, Green London, King of Greens, and Lord Eldon, are new and good sorts. In the white class, Antagonist is rapidly making its way to the top; whilst King of Trumps, London City, Careless, Snowdrift, Hero of the Nile, Weasel, and Duchess of Sutherland are amongst the recently introduced varieties that have become sterling sorts for exhibition purposes. Any amateur commencing the cultivation of prize Gooseberries may venture to add the above varieties to his collection, however select it may be.

HEAVIEST BERRY IN EACH CLASS.

	RED.	dwt.gr.
Seedling, grown by Mr. J. Brassington, Longton, Staffordshire	29	0
	YELLOW.	
Leader, grown by Mr. John Coppock, Mollington, Cheshire	24	12
	GREEN.	
Rough Green, grown by Mr. Joseph Fish, Turton, Lancashire	26	1
	WHITE.	
Snowdrift, grown by Mr. T. Pilkington, Scaresbrick, Lancashire	25	12

Names and Colour.	No. of Prizes won	No. of Times 20dwt. & upwards.	Heaviest Weight	Whom grown by.	County grown in.
RED.					
London	375	163	dwt gr. 27 18	J. Walton....	Cheshire
Companioa.....	300	74	24 0	W. Box.....	Staffordshire
Slaughterman	154	19	25 14	J. Jones.....	Cheshire
Lion's Provider....	138	24	23 22	J. Jones.....	Cheshire
Conquering Hero..	119	18	24 19	W. Maddox ..	Staffordshire
Wonderful.....	106	27	24 20	J. Everton ..	Leicestersh.
Clayton	51	8	24 9	J. Walton....	Cheshire
Highlander	22	7	23 16	F. Oldfield ..	Cheshire
Give it a Name....	6	3	25 22	J. Jones	Cheshire
Lord Stanley.....	4	3	23 14	T. Furber....	Lancashire
Bedford	3	3	24 18	F. Oldfield ..	Cheshire
Southwell	2	1	24 16	Shumack	Notts.
YELLOW.					
Catherina	322	87	23 8	T. Oldfield ..	Cheshire
Leader	241	34	24 12	J. Coppock ..	Cheshire
Drill	183	27	24 8	E. Smith	Cheshire
Leveller	69	14	23 6	J. Harvey	Lancashire
Moreton Hero	38	5	22 2	W. Oliver....	Cheshire
Stella	34	5	23 0	J. Yarwood ..	Cheshire
Gunner	36	1	21 10	F. Jamieson..	Cheshire
Oakmere	22	5	23 0	J. Jones.....	Cheshire
Dublin	20	2	22 6	J. Parry	Cheshire
Lightning	7	1	22 8	J. Jones.....	Cheshire
Great Western	6	2	21 15	J. Johnson ..	Staffordshire
Cramp	6	2	22 18	J. Leicester ..	Cheshire
GREEN.					
Thumper	258	25	24 12	F. Oldfield ..	Cheshire
Gretna Green	163	15	24 3	G. Storer	Derbyshire
Queen Victoria....	158	16	23 0	T. Bradshaw ..	Cheshire
Turnout	152	6	22 11	F. Jamieson..	Cheshire
Rough Green	120	30	26 1	J. Fish	Lancashire
Thunder.....	69	4	23 22	J. Coppock ..	Cheshire
Telegraph	62	2	21 2	J. Pickavance ..	Lancashire
Tom Joiner	44	4	21 4	G. Worrall ..	Cheshire
King of Greens ..	11	3	23 18	J. Hall	Lancashire
Lord Eldon	6	2	22 9	T. Bell	Cheshire
Green London	4	3	22 10	W. Oliver....	Cheshire
Fearless	4	1	22 18	G. Addis	Staffordshire
WHITE.					
Freedom.....	265	49	25 4	F. Jamieson ..	Cheshire
Queen of Trumps..	211	33	23 0	J. Moss	Cheshire
Snowdrop	183	21	23 17	W. Baskerville	Cheshire
Antagonist.....	144	43	25 6	J. Brassington	Staffordshire
Lady Leicester	128	13	23 0	J. Alston	Lancashire
Jenny Lind	62	5	22 8	R. Foster	Cheshire
Careless	47	5	24 9	J. Brassington	Staffordshire
King of Trumps ..	33	2	22 18	W. Berry	Lancashire
London City	28	6	23 0	J. Walton....	Cheshire
Snowdrift	24	2	25 12	T. Pilkington	Lancashire
Duch. of Sutherland	0	2	22 10	J. Brassington	Staffordshire
Jenny Jones	2	1	22 20	T. Pilkington	Lancashire

TWELVE HEAVIEST SEEDLINGS IN EACH CLASS.

Names and Colour.	Heaviest Weight.	Whom grown by.	County grown in.
RED.			
.....	dwt. gr.	J. Brassington..	Staffordshire
Pretty Boy.....	29 0	G. Webster	Lancashire
.....	21 18	Mr. Windle	Notts.
Uncle Tom	21 16	J. Walton	Cheshire
.....	21 6	J. Boote.....	Cheshire
.....	20 15	J. Barker	Staffordshire
.....	20 0	W. Moon	Lancashire
*Sir Colin	19 6	W. Baskerville..	Cheshire
.....	18 12	J. Bennett	Lancashire
.....	18 11	W. Berry	Lancashire
.....	18 8	W. Oliver.....	Cheshire
.....	18 8	W. Goodall	Notts.
.....	18 14		
YELLOW.			
*Hecla	23 14	J. Walton.....	Cheshire
.....	21 5	T. Cook	Cheshire
.....	20 9	J. Park	Lancashire
.....	20 6	J. Walton.....	Cheshire
.....	20 6	R. Heap	Lancashire
Mary Ann	20 0	W. Watson	Cheshire
.....	19 5	W. Bass	Lancashire
Punch.....	19 0	J. Walton.....	Cheshire
.....	19 0	J. Chapman	Lancashire
.....	18 17	G. Webster	Lancashire
.....	18 16	Mr. Orchard....	Notts.
.....	18 12	I. Sanders.....	Cheshire
GREEN.			
.....	19 4	C. Stanmer	Staffordshire
.....	18 19	J. Mathewman..	Yorkshire
.....	18 5	L. Lockett.....	Staffordshire
.....	18 0	J. Fish	Lancashire
*General Williams	17 18	G. Ryder	Notts.
Martha	17 12	W. Watson	Cheshire
.....	17 1	J. Dixon	Lancashire
.....	17 0	J. Payne	Derbyshire
.....	17 8	J. Pattison	Staffordshire
.....	17 4	J. Oldfield.....	Cheshire
.....	16 20	Mr. Hooley	Notts.
.....	16 17	J. Pilkington ..	Lancashire
WHITE.			
Miss Nightingale	21 5	J. Walton.....	Cheshire
.....	20 6	T. Chippendale..	Lancashire
*Alma.....	19 19	W. Rawson	Lancashire
.....	18 22	W. Henshall....	Cheshire
.....	18 18	L. Lockett.....	Staffordshire
.....	18 18	W. Moon	Lancashire
.....	18 17	J. Everton.....	Cheshire
.....	17 22	J. Turner	Lancashire
Miss Townsend	17 22	T. Bell	Cheshire
.....	17 12	N. Cranshawe ..	Lancashire
.....	17 0	T. Fildes	Lancashire
.....	17 0	E. Livesly	Lancashire

Those marked thus * have been sold out this season.

Should the analysis and the few remarks with which I have prefaced it be deemed worth the space they will occupy, you may insert them in your pages, and I trust they will interest some of your readers and offend none.

German Seeds and Seedsmen.

THE rage for German flower seeds did not arise like some of the fancies for foreign things, for in some flowers they save seed better than the generality of the "Britishers." But there is no reason why they should. If we adopted the same system we could save it just as good, and we have proved this to our own satisfaction. Their notions of colours do not exactly coincide with ours, because they affect to see a difference where we do not, and we look with astonishment at the bare mention of thirty-six varieties of Ten-week Stocks. We have never attempted to save more than half-a-dozen or eight. The only distinct Stock that we attempted to save by itself was the Sulphur Yellow, as they called it, and, seeing by the few seeds we had, that it was very large, and a great proportion double, we certainly tried our best to save it separate and well. Our curiosity too was excited by the fact, that the only single ones we had among them were pure white. We allowed them to grow and bloom until some of the pods on the main or middle stem had begun to swell, and then, not only pinched off the bloom that was above them, but also removed all the side shoots, and allowed nothing more to grow, so that the entire strength of the plant was thrown into the seed-pods already set. We had not a large crop, as may be supposed, and when we gathered in our harvest and looked at the small quantity, we no longer wondered at the German packets containing only one hundred seeds. However, we had great confidence in the result, from the fatness and cleanliness of the seed. We sent it out quite German fashion, and we can refer to two or three friends who had not a single blooming plant in the

hundred; and our readers may take our word for this much, if they have a single Stock of a colour that they fancy, they may save seed by the means we have described, and the greater portion will be double, and, if not near other colours, true to the very shade of the single one. The great difficulty is in sowing the colours separate and far away from each other, because otherwise there will be a danger of mixing; but we feel assured that any one who will take the pains, may become famous for any seed that he may give his mind to, and adopt the proper means. It is rather curious that all the German catalogues seem to be made up of the same articles; they are even similar in the number of varieties which they describe to each subject, and each perhaps boasts of novelties. We have before us two of the best and most comprehensive, and there is in each a new annual that beats the elegant little *Rhodanthe Manglesii*. The description is identical. "*Acroclineum Roseum*, new splendid rose-col. everlasting, surpassing *Rhodanthe Manglesii* in beauty." The price is alike in both. It is clear to us that the seed growers in Germany do make themselves famous for growing particular things, and that, by exchanging among one another the subjects they grow, the respectable houses are much the same, perhaps exactly the same, in the quality of the seeds they sell. It was under this feeling that we have felt more inclined to treat of German seeds and seedsmen. A friend of ours who has been all over the continent informs us that seed growers save all their best seeds in pots, and that it is by this means they keep the separate colours so well. By potting, they can match the colours without difficulty, and remove the plants at pleasure, to be saved in groups; but that they also grow large quantities in the open ground, and therefore each grower can save the best for himself, if he please, and let the seconds as it were, but which may nevertheless be good, to their fellow dealers. As a specimen of the great variety they profess to sell, we may mention seventy-eight varieties of Asters, a hundred and fourteen Ten-week Stocks, eighty Brompton

and other Stocks, sixty Balsams, thirty-three Larkspurs, without going into any other subject, such as twelve varieties of Coxcombs, twelve Salpiglossis, thirty ornamental Gourds, and so on. We will take the Balsam. We think we have got this flower as good as it can be got, and we cannot find among ours, after six or seven years of hard work at them, more than a dozen good varieties, and we can no more imagine eighty than we can fly, and we are too heavy for that. Nevertheless we have endeavoured to make one first-rate German seedsmen understand what we value in colour, and form, and character in Stocks, Asters, Larkspurs, and a few other things, and intend, "please the pigs," as Mrs. Partington says, to grow German seeds by the side of those saved by ourselves, and see if ours will suffer by comparison. One thing is quite clear, and that is, in Stocks and Asters, and some few other things, they beat English growers in general, but if those who adopt the means we have described do not keep up close, we shall be astonished. But we recommend mixed packets to those whose ground is limited, for the endless varieties of any one thing would fill a garden. We have said nothing of Aster saving, but this is done by cutting off everything but the crown bloom, and pulling up every plant that is not double to the very centre.

GEORGE GLENNY.

The Chrysanthemum.

[Continued from page 89.]

THE following are new Chrysanthemums, all of which I have seen, approved, and ordered. They are grown by Mr. Salter, of the Versailles Nurseries, and are coming out this season.

General Canrobert.—Pompone, clear yellow, very double, free bloomer, fine for specimens.

Francois I.—Pompone, yellow, shaded with dark orange, very double, free bloomer, and distinct colour.

- President Morel.**—Pompone, anemone, red salmon, with very high anemone centre, bright golden colour, free bloomer, makes a splendid specimen.
- Margaret of Norway.**—Anemone, red, large flower, gold at centre, free bloomer, new colour.
- Perle.**—Hybrid anemone, rose lilac, fine high centre, free bloomer, and very fine.
- Mustapha.**—Pompone, brown crimson, double, and very free bloomer, distinct.
- Valerie.**—Large flowering, orange cinamon, free bloomer, dwarf habit, sometimes half anemone.
- Ruth.**—Large flower, splendid orange, double, high centre, and free bloomer.
- Cardinal.**—Large flower, orange and brown, free bloomer, incurved petal, fine for cut blooms.
- Joiette.**—Hybrid anemone, lilac, golden centre, free bloomer, distinct and double, good for specimens.
- Fleurette.**—Pompone, purple violet, very free bloomer, distinct, double, good for specimens.
- Satrina.**—Large flower, blush, with rosy back, free bloomer, and good show flower.
- Franchette.**—Hybrid anemone, pale lilac blush, with lighter centre, free bloomer, and very delicate.
- Marie Dupuy.**—Pompone, white, tipped rose, free-blooming and double.
- Margueridetta.**—Pompone, anemone, rose, with lighter centre, very fine form, and dwarf habit.
- Ninette.**—Lilliputian, pale sulphur, almost a ball, quite distinct from any out, blooms pyramidically, a real gem.
- La Bourreau.**—Hybrid, dark red, with gold tips, very close and full, distinct.
- Clemence.**—Large flower, clear rose lilac, incurved, and show flower.
- Marquis du Molleville.**—Large flower, very pure white, incurved, fine show variety.
- Constantine.**—Large flower, red salmon, incurved, fine for show.
- Lothario.**—Large flower, light red carmine, incurved, and fine for show.
- Flavia.**—Pompone, anemone, bright gold, with pure high centre, free bloomer, dwarf habit, and very fine for specimens.
- Mrs. Sentir.**—Hybrid anemone, pure white, with yellowish centre, splendid form, and one of the finest anemones.
- Antonius.**—Hybrid anemone, dark centre, free bloomer, distinct, and very fine.
- Madame Mazesses.**—Pompone, silvery blush, very beautiful and double, quite a new colour.
- Madame Vilmorin.**—Hybrid, mottled blush and lilac, free bloomer, and pretty.
- Rozinante.**—Hybrid, rosy blush, very delicate, free blooming, and double.

- Vulcan*.—Large flower, chestnut red, incurved, fine for show.
Rob Roy.—Large anemone, crimson marone, with golden centre, quite distinct, and very fine.
Roqueleure.—Hybrid anemone, red, with orange salmon centre, free bloomer, and distinct.
Desdemona.—Large flower, red salmon and fawn, free bloomer, and fine for specimens.
Mr. Deschamps.—Large flower, clear canary yellow, form of Annie Salter, free bloomer, and fine for specimen plants.
Elizabeth.—Large flower, pure white, incurved, very fine show variety.
Alfred Salter.—Large flower, light rose, incurved, the finest and largest of its colour, and the most beautiful show flower yet out.
Scarlet Gem.—Pompone, crimson scarlet, very early, very double and dwarf, the most profuse bloomer ever sent out, and by far the finest of all the early sorts.
Genevieve.—Large flower, pure paper white, very free bloomer.
- SAMUEL BROOME.

Temple Gardens.

—◆—

Cross-breeding

THE ANTIRRHINUM. MIMULUS, DIGITALIS, AND SWEETWILLIAM.

MR. EDITOR,—Accept my heartfelt thanks for your condescension in giving a place to a few scraps of mine in your April number, and to finish up all the subjects I operate upon in my little Eden, I again respectfully request insertion of the following in your May series.

ANTIRRHINUM.—This is a very excellent bedding out plant, but alas! few are to be had of a pure and decided colour, which, with a fine habit, is what the persevering ardent florist should strive to obtain, by crossing those which have large, round, wide, and well turned upper lips of a bright deep colour, without any divisions, and the tube of the most pure and transparent colour. This would form a desirable contrast, without which the Antirrhinum is nothing. Yes, I say the tube pure, not like a majority of the *royal* Tulips that won the prizes

at the Crystal Palace. No, no, really when I bring to mind the names of the judges, and the fine and elaborate dissertations one of these said gents makes on the *purity, form, and marking*, well may I exclaim, O the depravity of human nature. Sure I may venture to say that they had not their spectacles on, or, perhaps before going to judge, they partook rather freely of the Scotch mountain dew, and, if I may be allowed to judge other mortals by myself, it was no wonder that they did not discern *white* from *yellow*, *long* from *short*, *pointed* from *well rounded petals*, and *fine markings* from *ticks and blotches*. But really, Mr. Editor, my mind is so much on the Palace show, that when I am describing what a good flower should be, I wander from my text, so do forgive me, Now I am out of the Crystal shop, and into the garden, watching the Antirrhinum flowers, for they are rather ticklish subjects, and the busy bee is ever partial to the dew or honey, which lies at the very extremity of the tube, and his art in opening it, even when but half blown, is really most wonderful. I would advise, in crossing, that the flower, when only one-fourth out (mind this), be cautiously opened, the lower part, nearly down to the bottom, be cut away, and then, with your sharp pointed scissors, gently extract the anthers on each side of the female organ, and leave the upper part of the tube or large lip as a bonnet to protect the stigma from wet, until it has come to maturity. The bee, seeing the flower dismantled, will not seek to enter, and the upper part being left entire it will require no glass cover over it to protect it from rain. The flower so prepared must be carefully examined with your pocket lens from day to day, and, as I have before fully explained, when in a fit condition, apply the farina to the top or apex and all down the long pointal, and leave it to itself until the seed is perfectly matured, which will be indicated by the brownness and a small opening on the very point of the seed pod.

THE MIMULUS AND DIGITALIS.—I don't mean the small yellow Musk Mimulus plant, but those with large

yellow tubes, spotted or finely blotched, or with one colour of crimson or carmine lips. It is a very pretty and prolific pot plant flower when well grown, but I must say, in my borders I have never been able to grow it to any perfection. I crossed a few flowers of this and the *Antirrhinum* last season, that is *Antirrhinum* Model of Perfection with a fine seedling; and *Mimulus* Magnificent with *Rubinus*. The seed is sown, and in the autumn, if spared, I shall, I trust, see something new. In the *Mimulus* and *Digitalis* the pollen arrives very early at maturity for impregnation, and the flowers of both, as in the case of the *Antirrhinum*, should be opened when very young, and the anthers cut wholly out, and in all other particulars they should be treated in crossing the same as in the *Antirrhinum*. Last season I had a *Digitalis* in splendid style, one plant contained about a hundred large flowers, with pearly snow-white tubes, and in the throat most beautifully spotted, ay, much finer, in the opinion of many judges, than the spots in the *Calceolaria*; in height it was about seven feet, growing majestically under the shade of a Walnut tree, facing the north and north east.

THE SWEETWILLIAM.—This is a very sweet flower, and carries an immense truss of bloom; it is a favourite of mine, but I have sought in vain to obtain a plant, or even a pinch of seed of Mr. Hunt's far famed varieties. So anxious was I to see the flowers so highly extolled, that I used the freedom of writing Mr. H., and requested him to favour me, for love or money, with a pinch of his fine seed, but he took no notice of my humble request, which I thought very strange indeed of an Englishman, who, like the French, are so far famed for frankness and politeness. I had, last season, a seedling, a very fine dark flower, with every good property, which I crossed with one of a much brighter hue, also a seedling, and to perform the cross, I watched each flower as it opened (the truss being covered with glass), and extracted very gently, with my pincers, all the little trembling anthers, then examined the pollen flower for

farina, and when ripe took the pip entirely off, and extracted the stigma, and shook it over the pistil of the mother plant; and so, day by day, with all the flowers I cross-bred last season. Now, Mr. Editor, I have done my best in offering to the young florist every iota of my practice, and if it should be the means of improving men and floriculture, for time and trouble I shall be well remunerated.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

[We cannot refrain from publicly thanking Mr. Cunningham for this and his other communications. (See pages 84 and 111.) Our friend lays everything down in such a clear and straightforward manner that we may say, in the language of one of our correspondents, "A child may understand and practice." We hope Mr. C. will again take up his pen (if at some future day), and give us more of his experience.—ED.]

Vegetables and Flowers.

MR. Editor,—I beg to offer to the notice of your readers a method I adopted to bring forward Hyacinths, Tulips, &c., in the years 1854 and 1855, which, it will be remembered, included some most severe weather. In October and November, the bulbs were potted into rich earth, and plunged in a leaf-bed, three feet deep. The bulbs were thus brought forward gradually till they had attained a growth of from one to two inches, when they were removed to a bed for early Cucumbers, made of seven feet of leaves, and two of good hot stable dung. They were placed in suitable quantities, in December, around the hills made for planting the Cucumbers. The bed was kept, by linings and coverings of straw, at about sixty to seventy degrees. The end of January, the Hyacinths flowered strong, and the Tulips, Narcissus, &c., followed in due time. These had to be sent forty miles, to the family in town,

once every week, and the vegetables were used as a means of packing the flowers, by practising the following rule. On the afternoon of the day previous, the vegetables (which were frozen, from the intensity and continuance of the frost,) were gathered and placed on mats, in the greenhouse, which was gravelled all over; here they thawed, and were ready for packing in the hampers, affording a safe conveyance for flowering bulbs, as well as Heaths and greenhouse plants, which were mossed over, and tied firmly, to prevent the soil from being disturbed. They were then rolled in paper, and laid horizontally among the Greens, Spinach, &c., and sent by train. In this way I regularly forwarded a supply of plants and vegetables during the frost, and they almost invariably arrived safe. Vegetables, gathered and thawed as described, being approved of, obviously demonstrate the advantage of gathering them the day previous, whereby they escape the frost of the ensuing night, and are ready for packing early the next morning.

THOMAS TORBON,
GARDENER TO S. KEATS, ESQ., BRAZIER,
NEAR WALLINGFORD.

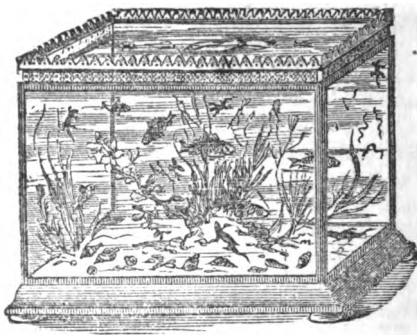
Cape Heaths.

BEING rather a successful cultivator, I wish to make a few remarks, which I hope will be of service to the amateur. To start: it may be laid down as an indubitable truism that more Heaths are annually killed by kindness than by neglect, and hence the amateur cannot do better than dismiss from his mind all ideas that they will turn sickly if they get a drop too much water, or die outright should they ever want a sufficiency. I have seen these plants in rude health, with their pots covered with moss and lichens and almost lost amid weeds, and watered broadcast with a coarse-rosed watering pot, and no more care taken of them than of a bed of cabbage; and I have also seen one of the largest collections in

England, in a house which cost hundreds of pounds, attended with most assiduous care, and scrupulously clean, and yet almost every plant had death written on its long lanky visage, and all because some great gardeners, in a neighbourhood remarkable for the humidity of the atmosphere, had said or written that Heaths must have the collar of the plant elevated above the rim of the pot; or, in other words, have, in more arid situations, their balls or roots hung up to dry. Hence, after a general shifting, came, as a natural consequence, a funeral, and for a few dozens, scores, or hundreds of plants, according to the stock, to be committed to the tomb of all the Capulets, was no unusual thing. Indeed it was not until the discussion consequent on the promulgation of the large shift system took place, that the philosophy of the practice was explained, and the absurdity perceived. The mistake was, elevating the collar of the plant above the level of the rim of the pot. To elevate or round up the ball below the rim of the pot is an allowable practice at the present time, if the surface roots are not too much exposed. The great requisites for the successful management of Cape Heaths are *good peat, good water, and good air*. The first can only be obtained from upland situations, or from places where it is not covered with water for a great part of the year. Peat may be described as decayed vegetable matter, the accumulation of ages, which has become thoroughly disintegrated, and consisting principally of natural carbon. This kind is very turfy, and closely compressed. Rather soft is the best, and when thoroughly aerated, by exposure to the air for a few months, is the sort of thing to use. In collecting it take care only to cut the thickness of the very turfy part, and if any sand adhere, cut it off before it is laid by to rot. Soft peat may be used, well mixed with sand, while the plants are small and in free growth, but in large quantities it is liable to become soddened and water-logged, and hence the plants, though they grow rapidly at first, soon become sickly and die. I shall, at a future month, resume my remarks.

B. COOMBE.

The Gardens, Lenton Hall.



Aquariums.

AQUARIUMS have now become so universal that I think a few remarks on their formation cannot but be interesting to many of the readers of the *Midland Florist*. They may be made of anything that will retain water, but glass is best, because, when the material is transparent, the inmates can be so much better observed.

The best way is to buy an aquarium,* and where expense is not considered, one of square or rather oblong form is preferable, inasmuch as when placed between the spectator and the light, the contents are seen without being disfigured; but where cheapness is required, a round one will be found very nice, although it undoubtedly mars the beauty of the objects contained, by unequal refraction, hence the fish appear distorted and of various shapes.



* The illustrations are from articles manufactured by Messrs. Claudet and Houghton.

A still cheaper sort may be made with a propagating glass. Having selected one as clear as possible, a stand is easily made out of almost any kind of wood; or it may be placed in a terra cotta ornament, where the weight of the water contained in the glass will cause it to maintain its position.

The aquarium, when of a square form, or containing any joints, should be well soaked, and the water should be changed several times, or the composition used may injure the inmates. This being done, a little sandy earth and a layer of sand, with some pebbles, should be deposited, for support to the water plants it is to contain.

In a future number, I will give a list of the most suitable plants, and also a few of the various animals which may be procured. In the meantime, I am sure any of your readers who may purchase or make an aquarium, will find it not only amusing but also instructive.

R. C. S.

Woodhouse.

AQUARIUMS are of two kinds,—the one having about the same relation to the other as a Wardian case has to a garden. Aquariums in gardens are neither more nor less than fancy ponds, in which the most interesting hardy water plants flourish; or fancy tanks, under glass, where the more tender exotics are cultivated. But in both of these we are, if not confined to plants, of which we see the beauty, at least unable to indulge in those fancy water animals that would be lost to us. But the other class of aquariums are glass vessels, of all sizes, from the simple globe, in which gold fish are usually kept for ornament, to the square-built glass receptacles, of any size we please to have them. In these we may grow the most interesting plants and keep some of the most beautiful objects in natural history. We see the bottom, which has generally a few shells, half embedded in sand, in which some of the most elegant plants that do not arise to the surface are grown, and among which many water insects, fish, and

reptiles, which generally harbour at the bottom, may be seen enjoying their natural habits, while the more lively inhabitants are sporting above. Consequently, many beautiful objects, that could never be seen at the bottom of ponds and tanks, may be observed to the greatest advantage in glass aquariums. Even those who have nothing more than a glass globe, with a couple of gold fish, that have hardly room to turn, may have an inch of sand at the bottom, two or three small plants growing, and several of the most curious water insects, to keep the fish company. I observe among your contributors, Mr. Brigden, of the Railway Arcade, who exhibits thousands of insects, reptiles, fishes, and plants, and several kinds of glass vessels, and I hope he will, on an early day, give us a paper on the subject of furnishing them, for I have been unfortunate enough, in my ignorance, to put together some that have destroyed each other.

A NEW READER.

ALLOW me to introduce into your valuable pages a few remarks upon the best plants and likewise their treatment, for the fresh water aquaria, viz.

1. *Vallisneria spiralis* is very essential to all fresh water tanks. It is a native of Italy, and is named in honour of the Italian naturalist, Vallisneria. The blooming of this plant is very curious and worthy of close scrutiny; it likes abundance of light, and must be grown as a bottom plant, flourishing only when well rooted. It is likewise a valuable plant for the microscope, as it shows the circulation of the sap so beautifully.

2. *Anacharis alsinastrum*, or the new water-weed, is an interesting plant, that grows freely, whether rooted or not, but it can only be considered ornamental when springing from the bottom. It thrives just as well without a root as with one, but, if firmly fixed, usually sends down a number of white rootlets, from joints on the stem. I have seen roots of this kind sent down eight inches, to reach the bottom, while the lower part of the stem was decaying rapidly.

3. *Stratoides aloides*, a lovely cactus-like plant, which grows equally well with or without a root, as indeed most water plants do. In form, it closely resembles the tuft of herbage on the crown of a pineapple, and its leaves have similar serrated edges. If thrown in, it floats on the surface, and puts forth new heads in plenty, each new head springing from the base of a leaf, on a long stalk. By separating these when pretty well grown, and removing the stem from the base, any number of new plants may be formed. If it be wanted to root at the bottom (as indeed is best), cut away the decayed portion of the base, and trim off every dark-coloured leaf, and throw the plant in again. In a few days, it will throw out roots, and it may then be attached to a stone, by a piece of bass, and dropped in, to fix itself where wanted, without in any way disturbing the tank.

4. *Starwort* I have found a good purveyor of oxygen. It is a pretty plant, of a delicate green hue, and appears on the surface of brooks and ditches everywhere, both in this country and all over the continent. At a little distance, it has so much the appearance of duckweed, as to be recognized with difficulty. Its botanical name is *Callistriche aquatilis*, but, owing to its liability to vary its appearance, botanists have divided it into several species, the most common of which are *C. autumnalis* and *C. vernalis*.

5. *Myriophyllum* contributes some lovely members to the aquarium. All the plants of this genera are of elegant structure, the leaves finely divided, and of a delicate emerald green. *M. spicatum* is perhaps the best, but there are other species to be had of the dealers that are worthy of attention.

6. *Polamogeton* is an extensive genera of water plants, numbering not less than fifteen species in the brooks and rivers of this country alone. *P. fluitans*, *crispus*, and *densus* are most easily obtained, and they flourish well in the tank, and make rich branching masses for the centres, or to climb over rockwork. They are all rather coarse, and apt to shed their lower

leaves, but, if well placed, produce a striking effect. They blossom freely in the aquarium, and that is a great recommendation.

7. *Hydrocaris morsus ranæ*, or common *Frogbit*, may be obtained of all the dealers, and is common in brooks and rivers. It is a perennial, interesting in its growth, very curious when in flower, and a good maker of oxygen.

8. *Alisma* of several species may be obtained from the brooks and rivers in plenty. It is the *Water Plantain* of the old botanists, and has an ancient renown that cannot be dealt with here. The long stems and lanceolate leaves of this genera give a pleasing variety to the vegetation of the tank.

The above-named plants I should strongly recommend to all ladies and gentlemen who are about fitting-up aquariums.

T. BRIGDEN.

Judging at Shows.

BY G. GLENNY.

STRANGE as it may seem, there is not a provincial show where neighbours or nurserymen are employed as judges, that the awards give satisfaction; over and over again have we heard that the censors who lived in the neighbourhood favoured the winners, through knowing their plants; and that nurserymen who lived a hundred miles away, gave the best prizes to their customers, and this has been said even when the awards were both honest and judicious. An angel from heaven could never give satisfaction if the showers could trace his intimate acquaintance with any successful competitor, and the committees can only give satisfaction by engaging distant judges, who are amateurs, or gentlemen's gardeners. The only legitimate objection is the expense, and there

is no denying that it does form an item of some consequence. But the difference it makes in the feelings of the losers is this; instead of falling pellmell on the poor judges for supposed favouritism, their confidence leads them to look among their plants or flowers to discover what has thrown them back. They know that the judges have no interest in doing wrong. There is no suspicion of favouritism, and they, however vexed they may be, only seek to know why they suffered. The only question is then, whether this confidence has to be purchased too dearly? In small societies, where the whole expenses of the show and the amounts distributed are small, it is a great object, because independent people, such as gardeners who do not deal, and amateurs who can gain nothing by the journey, can make no allowance, while nurserymen, who would attend all shows but for the expense of travelling, would go anywhere for the bare cost of the road. Hence it is that nurserymen are so frequently called in, and the exhibitors whom they serve are the first to propose them. There is a good deal of juggling in these matters. In the first place, the nurseryman is sure to know his customer's plants; they need no marking; the very labels in the pots would tell him. Now he may be a very honest judge, but if two collections were at all approaching equality, he would not dive too far into the extreme points to find anything against his own customer. This is no slur upon the body of nurserymen, but upon those who fish for "judgeships," who serve some of the people, somewhere, and seek to be appointed for their bare carriage, because they can pay themselves with orders. Amateurs and gentlemen's gardeners ought to stand out against this, and look with great suspicion at any one anxious for a nurseryman as censor. Where the prizes are of any consequence, the expense of independent judges, who have nobody to serve, and care for nobody, and moreover who have a general knowledge of plants and flowers, is of little consequence compared with that of inspiring confidence in honest censorship.

Pansy, or Heartsease, from Seed.

PANSY, or Heartsease, as this plant was more familiarly called, is a corruption of the French word *pensee*. The eagerness with which the Pansy has been sought, during the past few years, is a sure guarantee of its appreciation by all lovers of flowers. Although great improvements have been made, still it would be a great mistake to fancy, for one moment, that it has arrived at perfection. In Scotland, there has been established for many years, a Pansy society, holding exhibitions alternately in Edinburgh, Glasgow, and other large towns. I have no doubt that societies similar to this will be established in England, where many good varieties have already emanated, although I think a greater proportion have been raised in the former country. I do not mean to enter into a thorough detail of the culture of the Pansy, although, for many years, I have been a keen grower, and have tried experiments in raising crossed seedlings, and also in aiming to grow the named varieties to the utmost advantage. I must say, however, that I have of late years been sadly disappointed with these, as well as other flowers. I mean with the expensive varieties; for instance, ten-and-sixpenny Hollyhocks, and five-shilling Pansies. These apparently are growing to my utmost satisfaction, when, alas! they begin to droop, and daily half-a-dozen become paralyzed, and fall, never to rise again. This, I believe, generally arises from a sudden transition, or applying gross-feeding stimulants, with the view of having fine large flowers and robust plants. No doubt, for an extra occasion, these obstacles may be overcome, by planting in a temporary bed, to keep them from cold cutting winds, and covering over to keep off superfluous light and rain; but these conveniences are not generally at command among the more humble readers of the *Midland Florist*. Now my suggestion is this. Why not rear more of your plants from seed, a system very simple, and if the young plants are not placed in too rich soil, they will be found to be much

less likely to drop off and disappoint. For general decorative purposes, a more useful, and if judiciously managed, a more lasting flower than the Pansy is not to be found, while its beauty cannot, for a moment, be questioned. It can be had in bloom very early in the spring, and continues to exhibit its brilliant flowers till the sharp frost makes its appearance, and sometimes, even when the snow has fallen, a stray flower may be found shewing its head above the pure white sheet. The Pansy has also other advantages. It does not grow rampant, and is rather improved than injured by a certain amount of mutilation, therefore it might be arranged in a multiplicity of forms, either for single patches, beds, or the prevailing ribbon fashion. I have planted it in all forms, and have found it to look well in a small circle, the colours planted in rows to harmonize. One of the surest means of obtaining a good succession of bloom is to cut with discretion, a portion of the branches being removed from the plants near the stem. This must be done for the first time before the plants have too much exhausted themselves, and I would advise it to be done as soon as the plants are well established in size. If possible, also occasionally pick off the decayed flower stems, and if these precautionary measures are adopted, the superiority of the bloom will be greatly enhanced. As you may purchase as much seed as would plant a large portion of ground for the same money as would purchase a good variety, I think it is a very great consideration. I would by no means advise the purchase of cheap seed. Give a good price, and ask for the best to be procured, for, I assure you, the Pansy is so sportive that many varieties will be raised from one pod of seed, therefore, if the seed is only from a few varieties of all the classes, the grower need not fear the want of varieties in colours and shades. The seed should be sown in autumn, at latest by the middle of September, in a warm corner, at the bottom of a wall, or, if you do not possess such a spot, in boxes, when it can be removed in severe weather to some sheltered spot. It will do sown early in spring,

but will not flower till rather late, therefore, in this case, it should be sown in boxes, and a little bottom heat given, till the plants appear, when all the air possible should be given. The plants will thus be hardened off, and may be pricked out into the bed where they are intended to bloom. They will not be found to be shy, if the soil is well made. I would not advise planting in too rich soil. Early in the season a portion of fresh sandy loam, with a little peat earth and spent manure will be found highly beneficial. Dig deep, and allow the soil to remain rough, that it may pulverize and meliorate, in order to render the whole more acceptable to the young Pansies.

WILLIAM MELVILLE.

Dalmeny Park Gardens.

Cultivation and Propagation of Epacrises.

[Continued from page 101.]

CULTURE.—The soil which I have found Epacrises to thrive best in (and I have tried several sorts), is the same that is used for the generality of heaths, namely, sand and turfy peat, and I mix a little charcoal with it, for I have proved that the charcoal acts as a chemical absorbent, and it is also much lighter than pieces of sandstone. The peat and charcoal being well mixed together, use it as rough as possible, proportioning, however, the roughness and size of the pieces to the size of the pot, according to the large or small shift given. For instance, in potting cuttings into sixty-size pots, I use a few pieces of peat and charcoal, not larger than very small marbles. For a twenty-two inch pot, I use lumps larger than turkey's eggs. Having the above mixture in readiness, I proceed to the progressive system of potting. The pots should be perfectly clean inside and out, and porous rather than hard. As soon as the cuttings are well rooted, they should, if possible, be potted into single pots, proportionate to the size and

strength of the young plants, for if they are allowed to become matted together by the roots, in the pots in which they are raised, upon their removal they will receive a check, which requires time and attention to enable them to overcome; whereas, if removed as soon as sufficient roots are formed to supply adequate nourishment to the young plants, that labour is not required. I must refer the reader's attention to the potting shed. I take small or large sixty-size pots, and, as a matter of course, I drain them well with broken potsherd and charcoal. As anything like a clogging up of the drainage is ruinous to the *Epacrideæ*, on the potsherd and charcoal I place a layer of fresh moss, as I have proved the moss will keep the drainage clear, and act as an equalizer of moisture. In taking the young plants out of the cutting pots, great care should be exercised not to injure any of the young roots, for, by so doing, you check the constitutional vigour of the plants. In potting, I put a little rough or lumpy peat on the moss, then a little finer, and form a small cone in the centre of the pot; upon the cone I place the plant, then fill up with fine soil, and, after watering with a fine rose watering pot, return them to a pit or frame, with a slight bottom-heat, and, as a general rule, the young plants should never be allowed to flag. Having placed them in the pit or frame, shading must be attended to at first, to keep down the temperature when the sun is hot, and syringing the plants and the walls to raise a moist atmosphere, thus imitating the rainy season in their native localities. Increase the air and light by degrees, to enable the young plants to stand the full exposure to the sun, and when you expect John Frost to make his appearance, remove them to the greenhouse, giving them a light and airy position. In the spring of the second year, they will require nearly the same routine of management in potting, watering, &c. Be sure the plants have been thoroughly watered before potting. Practice has taught me that if they are potted dry, nothing will again thoroughly wet the ball, but placing the plants in a tub, or some other vessel containing

water. I use the same compost as for the young plants and cuttings, only in a rougher state, with plenty of drainage in all cases, especially for large plants, as this is one grand thing to be attended to in Epacrideæ culture. For a twenty-two inch pot, I use from five to six inches of drainage. I never disturb the old ball, except to rub off some of the surface soil, and remove the crocks or charcoal that interfere with the roots at the bottom. Pots, drainage, and soil being in readiness, I place the plant as near the centre of the pot as possible, and fill up with the compost, pressing it in firmly all round with my hands, as I do not like the bad practice of using the stick, because it injures the young roots. I fill up to within an inch of the rim of the pot, smoothing and gently pressing the surface soil down, so as not to let too much air enter. After watering them well with clear soft water, I place them in a close pit or frame, the same as the young plants. Shade and water as required. Increase the air and full exposure to light as their growth approaches maturity, and then remove the sashes entirely, and allow the plants either to stand in the pit, or shift them to some sheltered situation, where they can have all the sun; but they should be protected from thunder storms and drenching rains. To protect the pots from full exposure to the sun's rays, I recommend them to be put inside larger pots, and moss placed between them, removing them into the greenhouse before danger of frost. Give them all the light you can, and, by the 1st of February, you will have nice young flowering plants, and be rewarded with blossoms nearly as thick as the leaves. When they have done flowering, cut the shoots back. Keep them in a moist heat until they break afresh, and then the management will be the same as for the young plants.

WATERING.—Like Heaths and some Ferns, no plants suffer more from being allowed to get very dry. Although they are natives of high and dry places (in Australasia), as the name imports—*epi*, upon, and *akros*, the top, meaning they are found growing wild on the tops of mountains,—in those situations the roots are not

limited, but have full range. In cultivation, we give them no such advantage. When confined in a pot, they are at the mercy of the cultivator. Amateurs have often put to me the question, how are we to know when an *Epacris* wants water, when the surface soil appears wet? My answer is, by merely tapping the outside of the pot, for, if the drainage is all right, it will sound hollow, which is a certain indication that the plant is dry, while, if the pot should sound dull and heavy, it is a sure sign that the plant is wet. My system is, to water thoroughly, and give no more until the plant requires it.

If the amateur has not got the means at command for propagating, it will be cheaper for him to go to a respectable nurseryman and buy his plants, as they are now sold very cheap.

E. CLEETON.

Dumbleton.

New Fuchsias.

THE following, raised by Edward Banks, Esq., have flowers of an improved form and substance, and some of them striking and novel coloured corollas. There are amongst them flowers which, for gracefulness and novelty of form, are unequalled by any of the old style. The remarkable improvement consists of the corolla being enlarged to such dimensions as to become the most conspicuous part of the whole flower, the form being also much changed, and resembling a half globe; and though the petals are necessarily much extended, they overlap each other with great regularity, no division or unevenness being observable on the margin of the corolla.

Cœur-de-Lion.—Scarlet sepals and tube; corolla violet, form half globe; sepals elegantly reflexed; habit dwarf and a profuse flowerer; one of the best early varieties. Quite a lady's favourite.

Étoile du Nord.—This variety has already been figured and described in the *Midland Florist*. (See page 60.)

- Souvenir de Chiswick*.—Tube and sepals rosy crimson, with beautiful corolla of very fine quality; colour violet; splendid sepals of great width and length, finely reflexed. A magnificent flower.
- The Silver Swan*.—Tube and sepals white; the corolla large, and of a beautiful rosy lilac, similar to F. Duchess of Lancaster; the sepals reflex well. A very showy fine variety.
- The Little Treasure*.—Bright scarlet tube and sepals; immense large open corolla, in form half globular; colour a beautiful violet; sepals elegantly reflexed; habit first-rate, dwarf, and free.
- Little Bopeep*.—Scarlet sepals and tube; corolla violet, very large, and in form half a globe; sepals beautifully reflexed; inhabit one of the best. A splendid variety.
- The Fair Oriana*.—Sepals and tube pure white; corolla bright scarlet, the tube stout, round, and glossy; sepals wide and well reflexed. A nice flower.
- Star of the Night*.—Scarlet sepals and tube; corolla of fine quality, large and open; colour rich violet, except the base of each petal being bright rosy scarlet, which colour extends over one-third of the corolla; sepals charmingly reflexed. The seedling plant, at the first flowering, came beautifully flaked with rose, but the second season only a portion of the flowers exhibited this peculiarity, rendering them very elegant and novel in appearance.
- Catherine Hayes*.—Scarlet sepals and tube; corolla very pretty, of a beautiful light blue colour, form half globe, and very large; finely reflexed sepals. A free-flowering variety.
- Fairest of the Fair*.—White tube and sepals; corolla very large and showy, of a rich violet rose or crimson; sepals large and well reflexed. A striking and very large fine bold flower.
- Albert Smith*.—Bright scarlet tube and sepals; corolla violet, fine quality; sepals of great width and well reflexed. A very fine variety.
- Tristram Shandy*.—Sepals and tube rosy red; corolla large and open; colour pale lilac; sepals short and stiff, thrown back sharply; a new coloured corolla, very distinct from any other variety. Free growth.

Management of the Dahlia.

ALTHOUGH this subject has been written to death, and not a new idea has been started since we wrote, many years ago, a treatise too long for this work, we shall endeavour to compress the whole into an article of readable length, and we must request the readers to

bear in mind, that if Mr. A or Mr. B has told them the same thing, in some particulars, it is because he appropriated what we had written before him, and published it as if he were the author. Dahlias are now sent out in what are called thumb pots; those who desire to grow them should order them of some nurseryman, and meanwhile, prepare the ground, by trenching two spits deep, and, unless the ground be tolerably rich, dress it also with a coating of dung, which should be thrown in and stirred among the soil of the top spit; but if, instead of dressing the ground all over, you desire to make a little dung go a long way, reserve it to put in with each plant. Before you attempt to plant out, make up your mind as to the place that will be most effective for a proper display of the flowers. In our Garden Almanack, we have classed the Dahlias, giving five or six of each colour, that have been most successfully exhibited during the past season, or are the best for general effect in a garden. For the last two or three seasons, many have taken a hint which we gave, as to the advantage of planting in groups, each class forming a group. If we can only grow three in a class, a group of three planted in a triangle; if four, a centre one, and three forming a triangle round it; if five, a centre one, with four round it; if six, a centre one, with five round it; and if seven, a centre one, with six round it; and these form a splendid group. The effect of the mass of colour being really grand, as compared with single plants. In this way, we find the place for the centre one, which, in all cases, should be the tallest, and there drive down a stake, then, putting the line in a loop, or making a short line into a loop of four feet, put it over the stake, and draw a circle with the point of a stick at the other end of the loop. In this circle, drive six other stakes, at four feet distances, which just take up the circle; these stakes must be driven firmly and uprightly into the ground, which may be trodden down hard first. Now, these groups of seven should be sufficiently distant from each other to make them distinct; the closest should be six feet. In a large planta-

tion, there may be several rows of these groups, and, to give six feet clear between the groups, the centre stakes must be fourteen feet apart. Supposing then, that a piece of ground were seventy feet long, it would take five groups in the first row, and in the next, they must be planted opposite the intervals, so it would take only four, the next five, and then four again. And as the intervals will allow of the groups closing in to be exactly fourteen feet, from one centre stake to another, the rows will be all that less than fourteen feet apart, and we may affirm that the effect is rich, compared with that of parallel planting.



The classing of the colours gives large masses seen at any distance, and gives a brilliancy far beyond the effect of mixed colours. If you have not so many varieties in one colour as seven, make up with duplicates, or, if you please, all seven may be the same variety. The effect in the garden is equally good, except that we ought to have a tall one in the centre. If large borders are to be dressed with Dahlias, let them, nevertheless, be grouped in threes. Angular planting is the best, two at the back, three feet distant, and one in front, three feet from each of them, letting the tallest be at the back, but in all cases let the stakes be driven before the plants be put in the ground. You have, then, every advantage, knowing the number of plants you want, and making up your groups accordingly. We will engage that whoever has room, and once plants them in this way, will never plant them singly nor in rows afterwards! Groups of yellow, scarlet, white, orange, or purple, twenty yards apart, are much more effective than when spread out in single specimens.

TRAINING.—Every Dahlia, to be well supported, must have three, four, or five thinner sticks round the centre one: these should be sloping outwards, and to these the

side branches should be trained, otherwise the weight of a branch will often, and a breeze of wind always, break them. Some support the branches with loops from the centre, but, although this secures them from breaking by their own weight, it is no assurance against their being snapped off sideways by the wind. When they are in groups, they should be trained out sideways a little, so as to fill out the circle; when they are alone, they may be spread out all round as much as we please. Then, as regards the pruning, the safest management is to cut away all weak shoots, all the inner branches that cross each other, and, when the plant shows bloom, to remove the growth that comes out beyond the bud, so that flowers shall be at the ends of all the branches; but for show, people cut out according to the nature of the growth. This is all very well for people who are prepared to sacrifice the beauty of their gardens for prizes at shows; for some of the plants that are required to bring fine blooms, are cut to miserable looking skeletons, and this is a mistaken policy; for it may be overdone. Indeed, if the Dahlias are planted expressly for showing, the grouping system would not do. Every plant should be six feet from any other, and stakes should be driven accordingly, in rows, six feet apart every way. When these are all driven, and the ground is not manured all over, take round a barrowful of well decomposed dung, and drop a spadeful at the foot of each stake, and replenish the barrow as fast as you use it. When all are supplied, let holes be dug a foot deep, and as much across; mix the stuff thrown out with the dung thrown down, and return it all to the hole thoroughly incorporated, the surplus forming a little hillock. The ground may lie thus until you have your plants, then form each hillock into a hollow basin, of which the bottom is as low as the outer surface of the ground, and, with your trowel, make a hole deep enough to put in the ball of earth from the small pot, an inch below the outer level; cover it up that inch. In other words, the plant is to go an inch lower than the general level,

be placed close to the stake, and the surplus compost form a ridge round it. This holds water the few times you are obliged to give it, before the plant takes hold of the ground, and when once established, you will please yourself about watering any more; for mere garden ornaments, it is not required, but for very large show blooms, they do require it in hot weather. But when you give water, it should swamp the soil all round the plant, and should not be done again till the ground is dry, for the rain will often save us a turn. The swamping of the ground causes the damp to arise, which is as good for the foliage as the actual water is to the root. The outer stakes need not be driven until the plants attain a good size, and begin to branch out well. If the flowers are grown for exhibition, the blooms likely to be useful are necessarily protected from sun, wind, and excessive rain; for which purpose small tables are made, with a hole in the centre, and slits from one side to the hole, that the stick of a likely bud may be passed to the hole, and the table so adjusted that an inverted flower pot may be covered over the flower. The slit is then wadded with wool or moss, so that vermin may not pass, and the bloom is thus protected from all evil, till it can be cut for show. Some content themselves with a simple paper shade, on the end of a rod, stuck in the ground, so as to keep off sun and rain, but the bloom must, in that case, be made fast, and every leaf and branch near it fastened back or cut away, so that the wind cannot blow them against the flower, which, the least touch will spoil. From the first moment of planting out the Dahlia, earwig traps must be set, and examined daily; for unless they are pretty well cleared away before the blooms come, you will never do it. The flowers offer more tempting seclusion than inverted flower pots, or bean stalks, which we prefer to any kind of trap. When the plant is put in the ground, lay a bean stalk, a foot long, by the side of it, and go round them every day, in the warmest hours, and blow them into a vessel, with a little strong salt and water in

it. They will be plentiful at first, and gradually lessen, until you clear the place of them; but you must persevere all through the blooming time, for earwigs fly, and you will have them visit you in the height of the bloom, attracted by the smell perhaps. More than once we have seen earwigs arrested in their flight by fresh tarred palings, where they stuck with their expanded wings, which shows that we must always be on the alert. In cutting and packing the blooms, the surface ought not to be touched, and if the box in which they are carried, be soaked in water two or three hours, and wiped out, the humid vapour will keep the flowers in perfection for days, and when opened, at a long journey's end, will have settled on the blooms like very fine dew. On removing them, be very careful not to disturb this, for it gives the flowers a brilliancy and a freshness, equal to those cut the same morning.

PROPAGATION.—This has been written upon so often and so much, that it would seem tiring to the reader if given at any length, but, in a few words, we may repeat the lessons we gave twenty-five years ago. If but few plants are wanted, the dry roots may be parted into as many pieces as there are eyes, and the eyes or shoots may be excited by simply watering the roots, and throwing them into a hotbed for three or four days, or, if we have none, put them under the stage of a greenhouse, or in a kitchen. The less warmth they have the longer they are starting, but they do start at last. If more plants are wanted, the roots must be put in pots, or in soil, in a warm house, and as soon as a shoot is from one to two inches long, break it off, and strike it in heat. But if a large quantity is required, when the shoots are two inches long, cut them off near to the base, when a much larger number will start, to be cut off in the same way. Nothing strikes more freely than the Dahlia in general, but there are some exceptions, that is to say, there are particular varieties that are more difficult to root than others. As soon as the cutting has struck, pot it in the same pot it is to be sent off

in, and when it has grown three or four inches long, remove it to the greenhouse, and then to a cold frame, from which it is to be transferred for planting out.

SEEDLINGS.—In saving seed, mark perfect flowers only, of the best sorts, and, even then, only use the petal seeds, that is, the pod being thoroughly dry, scale off the seeds till you come to the disk seeds in the centre. Not one of these will come good, whereas the petal seeds, even of a semidouble flower, will often throw double flowers. The seed should be sown in March, April, or May; the beginning of April is best. When up and strong, prick them into four-inch pots, about five or six in a pot, and close to the side only. Plant them out the first week in June, in good soil, about eighteen inches apart in the row, and the rows two feet asunder, for you may soon thin them out, by pulling up at once, every one as soon as it exhibits a flat pip, which shows it cannot be double. Put stakes to all the likely ones, but as soon as the real properties are developed, unless it is calculated to improve your collection, throw it away, for it only causes regret and confusion when a novelty is worse than old favourites. The National Society ruined its character by tolerating flowers inferior to what we possessed already. It is for amateurs to avoid this, and it is only to be done by turning out things second rate, except as second rate. Dahlia seed should give really good flowers, if it be well saved, and we shall be disappointed if we do not get some novelty from a shilling packet of fifty seeds. We did last year, and see no reason why we should not again. There is great room for improvement in the centres of flowers, for, in no case, have we seen a stand of twenty-four, which had not the majority *sunk in the eye*. It is the bold round face that made Morgan's King, Princess Radziville, Napoleon, Princess, Lollipop, Dr. Frampton, and others of that class favourites, in spite of reflexed petals, and they are never shown in a stand well grown, without disparaging the best of those which have sunk eyes.

GEORGE GLENNY.

Chrysanthemums.

I HAVE lately seen in the *Midland Florist* some interesting articles on the cultivation of the Chrysanthemum. This flower is a favourite of mine, and I have grown it with great success for several years. I have two plans for propagating it with very little trouble. In May, I take short top cuttings from healthy plants, and prick them out in the open ground, in a shady situation, where they soon take root, when properly watered. When they have grown a foot high, they may be potted, if the grower so requires them. My other plan is to layer, about the longest day; sinking small pots, filled with good garden soil, in the ground, and bending the layers (one in each pot) well in, so as not to require pegging, leaving about three inches of the end for the future plant. When the pots are full of roots, I cut off the layer close to the pots. The plants can afterwards be removed into larger pots, if required. Care must be taken not to let the roots get dry, at any time of their growth; if thus neglected, particularly when the buds are formed, *blindness* is almost sure to be the result. I never use any particular mixture of soil, satisfying myself with the usual soil of my garden, which is rather of a strong than of a light nature. I apply soapsuds, free from soda, to all the plants I grow. I generally grow my Chrysanthemums with a single stem. By so doing, I get many plants in a small space, and a great assortment of colours add much to their appearance. When cuttings are taken, the old plants may serve for the open ground, but the early sorts only are suitable for this purpose. I succeeded well last season in growing Chrysanthemums in the greenhouse, out of pots. I find this plan to answer well; they continue in flower much longer than when grown in small pots. I had several plants, so grown, in full bloom the middle of January. The pompones do not make so good a show as the larger sorts.

W. S.

Cultivation of the Cineraria.

BY GEORGE TAYLOR, GARDENER TO HUGH JOHNSTON, ESQ.,
DANSON, KENT.

THE Cineraria, when seen under good cultivation, is one of the many floricultural objects that possess great beauty, and has several important claims on the cultivator's attention. Its early period of blooming, its infinite variety of colour, and the compact habit of growth of which it is susceptible, place it in a prominent position as a useful plant, where a varied profusion of early bloom is required. Whether seen in the form of the small plants of the amateur, or the more gigantic specimens of the professional gardener, the Cineraria is indisputably requisite for decorative purposes, in the small greenhouse or window of the former, and in the conservatory, drawing room, &c. to be supplied by the latter. For a number of years, I have cultivated the Cineraria as an early-blooming plant for the conservatory, and no plant better rewards the cultivator for his attention. I have had considerable practice, and, having a desire to assist others, as far as I can, to cultivate this plant satisfactorily, I beg to offer a few remarks descriptive of the method by which I obtain good specimens. The subsequent remarks may be, in the abstract, useful to some of your readers, although I do not expect many amateur growers have convenience to grow, or room to spare (when in bloom), for such plants as I am about to mention. My largest plants, which I bloom in thirteen-inch pots, are now in full blooming beauty, and some of them measure eleven feet three inches in circumference, and in altitude, thirty inches from the rim of the pot, presenting in appearance a compact bush, closely covered with bloom from the pot upwards. Under good cultivation, and if such were desired, specimens of the Cineraria could, in my opinion, be produced which would measure twenty feet or more in circumference. Time has done wonders in plant growing, during the last twenty years; the

future may do more. But to proceed with the mode of culture which I practise. When my plants become shabby in the conservatory, I select such as I intend to save seed from, those having bold flowers, of good size and form, distinct in colour, and of good compact habit. These I remove to an open part of the greenhouse, to mature the seed, watering but just enough to keep them alive. My best sorts I increase by offsets. Plants are set out for this purpose. I prefer a border behind a south wall for these, which I plant rather deep. When the seed is ripe, which is generally about the beginning or middle of May, I sow in boxes, well drained, having two inches of rough material at the bottom, over which is placed a layer of rough loam and peat to the same depth; the remaining space is filled with a compost consisting of equal parts loam and peat, a small quantity of rotten cow or sheep dung, and a portion of silver sand, all well mixed together. The boxes containing the seed are placed upon inverted flower-pots, behind a south wall. Watering is necessary, if the weather be dry, though but slightly, till the seeds vegetate. After the plants appear, great vigilance is required to guard the seedlings from slugs, which I find to be fond of the tender foliage of the *Cineraria*; and what a disheartening sight for a cultivator to see the beautiful healthy foliage of his plants perforated by this common enemy of the gardener. To keep this enemy at a safe distance, I have found the following means the best. Two flower pot saucers, filled with water, and a flower pot of less diameter inverted in each, thus forming artificial moats between the edges of the saucers and the inverted pots. On these pots I place the seed boxes. The locomotive powers of the slug on land are well known, but I have never found him making a voluntary aquatic excursion. When the seedlings are large enough, I pot off into small pots, well drained, and clean (I never use dirty pots), and filled with the compost alluded to before, and water enough to settle the soil, but not by any means to saturate it. They are placed in a pit or frame, near the glass, and if the

weather be clear, I shade the plants during the hottest part of the day, but take care not to shade more than is necessary, as that causes them to draw up weak, and strong dwarf growth is always necessary for the formation of good specimens. I syringe overhead with soft rain water, if plenty of it can be had. When the plants have established themselves in these pots, plenty of air must be allowed, by removing the lights, but shade, if necessary, from strong sun.

[To be continued.]

Fancy Geraniums for Bedding.

A CORRESPONDENT asks for a list of Fancy Geraniums, properly Pelargoniums, for ornamental bedding in the flower garden. The following are a few that I have found to succeed very well.

Unique (Rollison).—The foliage is light green, rather of the oak-leaved form, and very interesting and pretty. The flowers are rich bright purple, borne in compact heads, and produced in profusion. The plants usually grow from one to two feet high, spreading nicely; and when in bloom, the display is very charming. If they grow higher than wished for, the shoots are easily bent, and may be pegged down with light birch pegs. The following kinds, if thought to grow higher than desirable, may also be placed under the same treatment.

Anais.—This charming variety produces its lovely flowers, of white ground and bright rose, in contrast, in vast profusion, and has a very striking appearance. It is admirably adapted for a small bed requiring dwarf plants.

Ibrahim Pacha.—This is of similar growth to *Anais*, but the flowers are of dark hue, and being so unusual in colour, contrast most singularly with light and scarlet kinds. It is a profuse bloomer. The upper petals are blotched with dark crimson, and the margin a light crimson; the lower petals are lighter, banded with dark crimson.

Statiaskii.—This variety is a free bloomer, exhibiting its flowers well. The upper petals are a velvety crimson, with a white margin; the lower, blush, with a broad band of pink across the middle of each. These strikingly contrasted colours have a beautiful effect. •

Quercifolium Rubrum.—This is a pretty oak-leaved variety, with flowers of a rich red, and two distinct black spots on the upper petals. It is very interesting and beautiful. Its habit is dwarf, growing little more than a foot in height.

Nosegay.—This is a profuse bloomer. The petals are lilac, feathered with crimson, and have a veined blotch on each of the upper ones. A bed of it, edged with Ibrahim Pacha, produces a pretty contrast, the light flowers being surrounded with a rich dark margin.

Queen Victoria.—Flowers blush white, with a bright rose spot on each of the upper petals. This has a good effect, edged with Statiaskii.

There are many others which are admirably adapted for bedding, such as Lady Mary Fox and Diadematum erubescens, both exceedingly showy bright rose colours. They certainly are not so brilliant and dazzling as the scarlets, Tom Thumb, &c., but they are profuse in flowers, very neat in growth, of dwarf habit, and form a pleasing contrast with others.

T. BURTON.

Oxton Gardens.

The National Tulip Show.

IT is necessary to let all the young members of the floral community know that this has no connection with the National Society, which some weak-minded people think we handled too roughly, last year, in the *Midland Florist*, because, except so far as members of some twenty societies may exhibit at the national show of Tulips, it has no affinity. It is a gathering of all growers, open to all, and perhaps its only fault is that the organization is less complete than it might be, if it had a complete array of permanent regular officers, and properly admitted members. The members are only for the occasion,—it is possible that the whole may be changed in a year, and what is the consequence? Why, the members of 1856 choose a committee for 1857, while the only persons who have an interest in the management are the members for 1857, who are to be ruled by the members of 1856, or rather by their choice. Well, to whom can the intended exhibitors of 1857 look for something like a controlling influence but to the independent press? Through what medium can they complain of past delinquencies but “the press?” Mr. Lymbery has done the cause good service by his few remarks on the fairness of the Yorkshire florists, and the gross unfairness of the two last shows; and Mr. Hepworth has followed up the subject with a few remarks on the impertinence of a mere fungus of floriculture presuming to tax the Tulip growers with ignorance as to the properties, while there is positively not the slightest disagreement. He may be confused and in doubt, but it is a piece of unprecedented effrontery to assume that Tulip

growers are in doubt. The only thing we are inclined to quarrel with our old friend, Mr. Hepworth, for, is his taking notice of a work of no authority whatever, and elevating a nonentity merely to knock it down again. But to the point. Is there a sane Tulip grower who dare deny that the judgment at the last two shows was grossly unjust? and Mr. Hepworth, when he asks "who but a fool can err in judging the flower?" might be answered, "a knave." But enough of the past, let us look to the future, and we entreat the members of the committee to recollect that they have the seeds of another mishap in their own body, that they must each of them exercise their best thoughts, act firmly and decidedly, take their lesson from the York show, and act accordingly. Another such a specimen of downright mockery in judgment will settle the National Tulip Show, at least that is the opinion of George Glenny, editor of the *New Gardener's Gazette*.

Opinions on Flowers, &c.

At the suggestion of several of our correspondents, we have arranged with the most competent judges to give opinions on flowers, and therefore invite our friends to send their subjects for inspection. Mr. John Dobson, Woodlands Nurseries, Isleworth, will give opinions on Cinerarias, Fuchsias, Calceolarias, Pansies, Verbenas, and Geraniums. Mr. Hepworth, of Hendries Gardens, Lea Bridge Road, Leyton, Essex, will receive Tulips, Auriculas, and Polyanthus. Mr. George Glenny, Fulham; Mr. Walker, of Winton, near Manchester; and ourselves will give opinions on any other plant or subject connected with floriculture. All letters must be prepaid, and a request to be noticed in the *Midland Florist* should accompany each communication, which should not be later than the 18th of the month, if intended to be noticed in the following number.

CINERARIA.—H. H.—*Bright Blue*.—This, when received, was rather withered. If the form is equal to the colour, it is a desirable variety.

Queries and Answers.

Can you tell me what will destroy ants in gardens? I have heard of a certain cure, by pouring boiling water on them or their nests, but this is not in all cases practicable.—H. M. G., *Oxford*.—The following remedy, from the pen of F. C. Lukis, Esq., M.D., Guernsey, appeared in one of our former numbers, and, having found it efficacious, we repeat it, for the benefit of H. M. G., and our new subscribers. "To an infusion of one ounce and a half of sliced quassia wood, or shavings, in one quart of boiling water, add, when cold, about half a pound of honey or molasses. Place small flat saucers, half filled with the sweetened mixture, with short straws floated upon it, in different parts of the garden or conservatory, under shelter from the rain, and in such position as may facilitate the approach of the ants. These little creatures will soon discover the traps, the contents of which they greedily devour, despite the intense bitterness.

The destructive qualities may be increased by the addition of about half an ounce of ferrocyanate of potash. Bee-keepers alone need be cautious of their stocks, for it is equally fatal to this kindred tribe of useful insects; but the danger may be avoided by a gauze or net covering to each saucer, with meshes wide enough to admit the intended victims, or a close sieve may be used to cover the traps." Ants may also be caught by finding the nest and placing a pot over it, in which they will build, and may then be easily destroyed. To prevent them climbing trees, nothing is better than a ring of gas tar round the stem, which effectually prevents their mounting.

Will one of the contributors to the *Midland Florist* oblige a young beginner with the best compost for Pansy growing, and also how the bed should be made?—The best soil I have found for Pansy growing is well decomposed turf, of a marly kind, mixed with a little lime, well broken (not riddled), and a proportion of good manure from an old hot-bed, well incorporated with it. A bed about three feet and a half wide, and of any convenient length, prepared with the above compost, nine inches to a foot deep, in a nice situation, exposed to the morning sun and shaded a little, if possible, from the midday rays of summer and keen north winds, would grow Pansies to please any one.—W. W., *Manchester*.

Will the editor of the *Midland Florist* give me his advice? I have taken a garden, and want a good bed of Dahlias. Will he please give me the names of the best, and also his opinion as to whether I should manure the bed? It has been well cultivated, and is in moderate condition.—H. FOSTER, *Pocklington*.—Mr. Foster will find a list of the best Dahlias in the April number, at page 120. A spadeful of rotted manure from an old hotbed, put in the hole with each plant, will give them a start, and will be all they require, except water.

Notes for the Month.

ANNUALS.—The season has not been very favourable for the seed sown in March and April. Many of the plants which have come up will, no doubt, be destroyed by snails; indeed, those sown during this month, and treated as described at page 121, will most likely have better success. Keep clear from weeds, and thin out properly. If the weather prove showery, a little quick lime or soot dusted over them will be found beneficial.—RICHARD EDWARDS, *Nuthall*.

AURICULAS.—Take good care of plants in pots, especially those that have flowered under cover. As the flowers fade, the plants should be removed from the stand, and placed in the open air, upon a clean level spot, where they will have the morning sun till nine or ten o'clock. Let them remain till September. Keep the ground clear from weeds, and water frequently in dry weather. Offsets may now be detached, and planted in a shady place, till autumn. All seedlings in pots or boxes should be removed into a shady situation, open only to

the morning sun. They will frequently require sprinkling, and must be kept free from weeds.—J. GIBBONS, *Bramcote*.

AZALEA INDICA.—Many of the Azalea tribe will be already arrayed in their most splendid robes, and therefore require some little more than ordinary attention, to prolong their beauty. Keep them cool, give plenty of water, air freely, and shade from the hottest sun. Keep young stock growing, stop all long straggling shoots, and keep them compact, to secure well shaped specimens.—H. BRASSINGTON, *gardener to Robert Holden, Esq., Nuthall Temple*.

CAMELLIAS.—Any plants not already potted, and requiring a shift, should be attended to at once, using the compost described last month. Shade from the sun, during the hottest part of the day, and syringe overhead, to keep the foliage in good order. Any plants that have completed their growth, and formed their bloom buds, should be removed to a cooler situation. I should not advise their being placed in the open air, except under an awning, to keep oil wet, and on boards, to keep out the worms. Much of the success of next year's bloom depends on present treatment.—J. FRANCE, *gardener to W. S. Burnside, Esq., Gedling*.

CARNATIONS AND PICOTEEES now in their blooming pots should be flowered on some kind of stage, to keep them from the attacks of creeping vermin. For want of better, get some pans, a foot across and three or four inches deep, fill these with water, place flower pots in them, and on the flower pots lay planks. If you use forms or long stools, let the legs stand in water. The plants require watering in dry weather, and when watered, all the soil in the pot should be wetted.—G. GLENNY, *Dunganon House, Fulham*.

CINERARIAS.—Under ordinary cultivation, these will be at their best not later than the beginning of the month, although some varieties continue good till the end. Previous to many being out of flower, we must turn our attention to the best means of securing good plants for another season. Most of the varieties produce side shoots while in flower; these may be taken off at once, and if rooted, may be potted off into thumb pots, first carefully looking over and cleaning them. If there is no appearance of root, they should be put in sand, and placed under a hand light, in a warm house. The black-fly will require to be kept under, as it is most destructive to small plants. The following solution will quite destroy them. Quarter of a pound of tobacco to a pound of soft soap, with about four and a half gallons of water. The soap and tobacco should be mixed separately, in hot water, and may be added to the quantity of water before mentioned, after being strained through a piece of muslin or a fine sieve. The plants may then be immersed in the liquid, with their heads downwards.

I find it answer exceedingly well for all kinds of plants, but more particularly for Cinerarias. Seed may be sown towards the end of the month.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

CUCUMBERS.—Attention to the linings will still be necessary, in order to keep up a moderate bottom heat. Covering the frames at night will also be requisite, until the end of May. Thin out superfluous and decayed shoots, and supply water as they require it. Pay attention to giving air, whenever the sun shines for any length of time.—T. BURTON, *Oxton.*

DAHLIAS.—Plant out by the 15th, those from cuttings and those from parting the roots, also old roots that have not been parted or propagated. Dahlias in plantations by themselves, should be six feet apart every way, and have their stakes driven down before they are planted, that they may be tied up at once, to protect them from wind. Lay all sorts of traps for earwigs directly, and hunt them industriously. Plant out seedlings at the end of the month.—GEORGE GLENNY, *Fulham.*

ERICAS.—Few plants require less attention. Give plenty of air and light, and never allow them to flag for want of water. —EPACRIS that have done blooming should be repotted, and the branches arranged, nipping out the centre of the shoots, to make them bushy and compact.—F. FRETTINGHAM, *Beeston.*

FLOWER GARDEN.—It is necessary to take up some kinds of bulbous roots once every year, in order to remove the small offsets. This more especially relates to the Tulip and Hyacinth, while the Narcissus, Jonquil, Iris, common Tulip, and others of the common sorts may occasionally remain two or three years without removal. The time proper for this operation is when the leaves and flower stalks of the different varieties begin to decay. If they are not taken up within a month after this, fresh fibres will be put out. All operations recommended in the former months, not yet completed, should be attended to. —RICHARD EDWARDS, *Nuthall.*

FRUIT GARDEN.—The weather, during the greater part of April, being wet and cold, the directions for that month are applicable to this. Thin Apricots, Peaches, and Nectarines, where the young fruit is set too thick. Apple, Pear, Plum, and Cherry trees, either against walls or espaliers, should also be looked over towards the end of the month, all useless and ill-growing shoots removed, and the proper ones trained in regularly; but observe, that although these trees mostly continue bearing many years on the same branches, it is proper to leave in different parts, to fill up any vacancy. Young wall and espalier trees that are advancing to a training state, require the same treatment. Keep the borders clear from snails, they make havoc with the choice kinds of wall fruit. Some attention is also required to keep down the insects which so frequently

infest wall trees. One dose of tobacco water, supplied with a syringe, will soon disperse them, if taken in time.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

FUCHSIAS.—**Repot.** Where late blooming plants are making free growth, every shoot must be regularly stopped. If this is timely attended to, fewer sticks will be required, the plants make handsomer specimens, and there is an increase of flowers. Remove the plants to a cooler house, or, at least, a house having no artificial heat. This will cause them to gain strength. Water often with manure water. Young plants may be repotted and stopped as required. Syringe once a day. Young stocks may still be put in; they will flower in the autumn. See that no plants suffer for want of water.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—Plants in this department will be making rapid growth, and many coming into bloom. Give plenty of light. About the middle of the month, some of the more hardy ones may be removed to the open ground, in order to give more room for the choice and tender varieties. Great attention must be paid to tying out and arranging the branches. All plants that assume a weak or sickly growth should be pruned down a little, and potted, in order to make them grow more freely. Keep clear from weeds and decayed leaves or flowers, and let no plants suffer for want of water. Manure water may also be used very advantageously, provided the drainage is complete. Always let it stand till quite clear, and use it weak. Air should be given at every favourable opportunity, to keep the plants robust, and drive away damp.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempshill Hall.*

KITCHEN AND COTTAGE GARDENS.—If the weather prove hot and dry, it greatly retards the growth of most esculent plants, and particularly Peas and Beans. Those on dry hot land suffer peculiarly, their bloom falling off. About the first week in this month, sow a little Endive, for blanching early in the season. Continue to sow, for successional crops, Peas, Lettuce, Cauliflower Broccoli, Cauliflowers, Savoys, Brussels Sprouts, Curled Broccoli, Mustard and Cress, Turnips, and Scarlet Runner Beans. Complete also, as early as possible, the planting of Potatoes. All newly transplanted crops should be watered, and young seedlings, and also those of larger growth, should be pricked out. This particularly applies to Celery, Cauliflowers, and Lettuce. Weeds must be carefully destroyed as they make their appearance. This is of great importance. At no time are the weeds more detrimental to the crops than at present, especially among Onions, Leeks, Carrots, Peas, and Lettuce. Weeds between other crops should also be cleared without delay, as nothing is more easy than destroying them while young.—JOHN BEARDMORE, *gardener to the Honourable and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—The plants in pots will be growing fast, and the blooms will be coming in their true character. Weak liquid manure water must be given twice a week. Give all the air possible, night and day, and shade during the hottest part of the day. An occasional shower on them will be beneficial, but heavy rains are injurious. Remove all side shoots which may be put in to strike, either in pots or in beds, selecting a shady part for the purpose. The plants for exhibition may have their flowers pinched off till a fortnight before they are required. They must be liberally supplied with water. Plants in beds must be carefully watched. The slug, earwig, and wireworm are all destructive. Seedlings will be fast coming into flower, and should be examined every day. When there appears a promising variety, mark it by placing a label to it, and make a memorandum of its colour, &c., and give it every encouragement. Those that are good should be propagated and proved.—**JOHN DOBSON, *Woodlands Nursery, Isleworth.***

PELAGONIUMS.—Many of the varieties will be coming in their true character, as the first flowers generally come small, and deficient in colour. The bees must be excluded, for if allowed access to the house, they fertilize the flower, and it soon falls. Netting, about threepence or fourpence per yard, answers the purpose exceedingly well, and, with care, it will last two or three seasons. Discontinue manure water to the May plants. Plants intended for July flowering, will require constant attention in training out the shoots, and must have plenty of room to grow in. They must be kept in a cool situation, and will require manure water twice a week. Take notes of such sorts as may be required in the autumn. Short memorandums are very useful, particularly to exhibitors.—**JOHN DOBSON, *Woodlands Nursery, Isleworth.***

PINKS.—At the earliest convenient period, remove any superfluous blooming shoots, and, in this process, a knowledge of the habits of various sorts is very useful. Thus, a strong plant of Mrs. Norman, or Colchester Cardinal will not carry more than two or three blooms; while an equally strong plant of Great Britain, or Narborough Buck should carry five or six. A good watering with liquid manure, after a hot dry day, will be beneficial once or twice a week.—**GEORGE WELLS, *florist, &c., Woolwich.***

VERBENAS.—If the two last months' directions have been properly attended to, an abundant stock of plants will be at command. Plant out about the first or second week of this month, paying due attention to the colours and habit of growth. Before planting, see they are free from greenfly. After planting, make the surface of the beds neat, and give a good watering, when dry.—**SAMUEL HUMPHREY, *gardener to T. B. Charlton, Esq., Chilwell Hall.***

Floral Exhibitions.

TULIP SHOW.

At Mr. G. Winterbottom's, Dog and Pheasant, Stalybridge, June 13, 1856.

Maiden Prize.—Charles X., H. Ratcliffe.

Feathered Bizarres.

- 1 Charles X., T. Penkithman
- 2 Magnum Bonum, R. Kaye
- 3 Duc de Savoy, J. Knott
- 4 Surpass Catafalque, J. Wilde
- 5 Rufus, J. Miller
- 6 Crown Prince, R. Kaye
- 7 Wellington, J. Wilde

Flamed Bizarres.

- 1 Polyphemus, W. Pickering
- 2 Charles X., T. Penkithman
- 3 Albion, W. Pickering
- 4 Pilot, T. Penkithman
- 5 Paganini, ditto
- 6 Lustre, W. Pickering
- 7 Surpass Catafalque, R. Kaye

Feathered Byblæmens.

- 1 Maid of Orleans, W. Cottam
- 2 Violet Winner, J. Knott
- 3 Premier, R. Kaye
- 4 Beauty, H. Ratcliffe
- 5 Prince's Royal, J. Miller
- 6 Tout, J. Wilde
- 7 Gibbons, J. Knott

Flamed Byblæmens.

- 1 Sir Henry Pottinger, R. Kaye
- 2 Maid of Athens, W. Cottam
- 3 Talisonia, W. Pickering
- 4 Prince Elie, ditto
- 5 Incomparable, ditto
- 6 Mango, T. Penkithman
- 7 H. & B., J. Miller

Feathered Roses.

- 1 Lady Crewe, J. Knott

- 2 Heroine, J. Wilde

- 3 Hero of the Nile, W. Pickering

- 4 Walworth, ditto

- 5 Unknown, J. Miller

- 6 Lady Grey, J. Muir

- 7 Duc de Bronte, T. Penkithman

Flamed Roses.

- 1 Unique, J. Knott

- 2 Aglaia, G. Chadwick

- 3 Catherine Gordon, W. Pickering

- 4 Triomphe Royale, ditto

- 5 Rose Quarto, J. Muir

- 6 Rose Guerrier, W. Pickering

- 7 Unknown, J. Miller

Bizarre Breeders.

- 1 Earl Radnor, W. Pickering

- 2 Polyphemus, T. Penkithman

- 3 Surpass Catafalque, W. Cottam

- 4 Lord Darnley, W. Pickering

Byblæmen Breeders.

- 1 Maid of Orleans, J. Miller

- 2 Verpoort, W. Pickering

- 3 Premier, J. Miller

- 4 Unknown, J. Muir

Rose Breeders.

- 1 Fairy Queen, W. Pickering

- 2 Lady Stanley, J. Knott

- 3 Catherine Gordon, W. Pickering

- 4 Village Maid, J. Wilde

Sells.

- Min d'Or, W. Pickering

- White Flag, ditto

TULIP SHOW.

At Mr. H. Bidgred's, King's Head Inn, Audley, near Newcastle, June 14.

Feathered Premier.—Charles, J. Jonson. | Flamed Premier.—Lucy Neal, ditto.

Feathered Bizarres.

- 1 Charles, J. Jonson
- 2 Lord Lilford, ditto
- 3 Rufus, D. Brown
- 4 Magnum Bonum, E. Eardley
- 5 Rising Sun, J. Jonson

Flamed Bizarres.

- 1 Polyphemus, J. Jonson
- 2 Sanzio, E. Eardley
- 3 Don Cossack, J. Jonson
- 4 Magnum Bonum, ditto
- 5 Surpass Catafalque, E. Eardley

Feathered Byblæmens.

- 1 Maid of Orleans, J. Jonson
- 2 Chellaston Beauty, ditto
- 3 Chellaston, ditto
- 4 Lady Denman, ditto
- 5 Bloemart, D. Brown

Flamed Byblæmens.

- 1 Bloemart, E. Eardley

- 2 Unknown, J. Jonson

- 3 Princess Royal, ditto

- 4 Queen Charlotte, E. Eardley

- 5 Violet Brun, D. Brown

Feathered Roses.

- 1 Duchess of Sutherland, J. Jonson

- 2 Claudiana, ditto

- 3 Heroine, E. Eardley

- 4 Unknown, ditto

- 5 Newcastle, D. Brown

Flamed Roses.

- 1 Aglaia, J. Jonson

- 2 Triomphe Royale, D. Brown

- 3 Clarke's Clio, J. Jonson

- 4 Catalani, E. Eardley

- 5 Ponceau Brilliant, J. Jonson

Breeders.

- Captain Nolan (bizarre), J. Jonson

- Venus (byblæmen), D. Brown

- Lady Cath. Gordon (rose), J. Jonson

BLACKBURN FLORAL AND HORTICULTURAL SOCIETY.

Thursday, June 12.

TULIPS.

Best Stand of Six Dissimilar Blooms.—George IV., Polyphemus, General Barneveldt, Grace Darling, Lady Crewe, and Triomphe Royale, J. Houliker.

Feathered Bizarres.

- 1 Catafalque Superieure, G. Foulds
- 2 Lord Lilford, T. Chippendale
- 3 Old Dutch Catafalque, J. Foulds
- 4 Rufus, J. Houliker

Flamed Bizarres.

- 1 Polyphemus, J. Houliker
- 2 Abercromby, J. Foulds
- 3 Albion, G. Foulds
- 4 Paganini, J. Foulds

Feathered Byblæmens.

- 1 Queen of the North, J. Houliker
- 2 Baguet, ditto
- 3 Bienfait, J. M. Pemberton
- 4 Grace Darling, J. Houliker

Flamed Byblæmens.

- 1 Queen of the North, J. Houliker
- 2 Violet Perfection, J. Foulds
- 3 Baguet, J. Houliker
- 4 Grace Darling, ditto

Feathered Roses.

- 1 Kate Connor, T. Chippendale

- 2 Lady Crewe, J. M. Pemberton
- 3 Comte de Vergennes, J. Foulds
- 4 La Belle Nanette, J. Houliker

Flamed Roses.

- 1 Triomphe Royale, J. Foulds
- 2 Gibbons, J. Houliker
- 3 Hebe, J. Houliker
- 4 Lady Crewe, T. Chippendale

Bizarre Breeders.

- 1 Sulphur, J. Foulds
- 2 Seedling, J. Houliker

Byblæmen Breeders.

- 1 Schoolboy, J. Foulds
- 2 Martin (seedling), J. Foulds

Rose Breeders.

- 1 Kate Connor, J. Foulds
- 2 Seedling, J. Houliker

Selfs.

- 1 Min d'Or, G. Foulds
- 2 Min d'Or, J. Pemberton

TULIP SHOW.

At Mr. J. Muir's, Hare and Hounds, Ridge Hill, Stalybridge, June 20.

Premium.—Lady Crewe, G. Woodhead. | Premium.—Aglais, G. Woodhead.

Feathered Bizarres.

- 1 Surpass Catafalque, J. Muir
- 2 Lord Lilford, J. Miller
- 3 Magnum Bonum, T. Macgregor
- 4 Charles X., G. Woodhead

Flamed Bizarres.

- 1 Polyphemus, J. Miller
- 2 Unknown, ditto
- 3 Surpass Catafalque, J. Muir
- 4 Unknown, W. Cottam

Feathered Byblæmens.

- 1 Duchess of Sutherland, W. Cottam
- 2 Maid of Orleans, ditto
- 3 Bienfait, J. Muir
- 4 Tout, ditto

Flamed Byblæmens.

- 1 Princess Royal, W. Cottam
- 3 Baguet, G. Woodhead
- 3 Bienfait, T. Macgregor
- 4 Alexander Magnus, J. Muir

Feathered Roses.

- 1 Lady Crewe, J. Miller

- 2 Heroine, J. Miller
- 3 Unknown, W. Shelmerdine
- 4 Lady Grey, J. Muir

Flamed Roses.

- 1 Triomphe Royale, W. Cottam
- 2 Unknown, ditto
- 3 Lord Hill, J. Knott
- 4 Unknown, G. Woodhead

Bizarre Breeders.

- 1 Unknown, G. Woodhead
- 2 Polyphemus, J. Miller

Byblæmen Breeders.

- 1 Maid of Orleans, J. Miller
- 2 Unknown, G. Woodhead

Rose Breeders.

- 1 Newcastle, G. Woodhead
- 2 Village Maid, J. Wilde

Selfs.

- Min d'Or, W. Shelmerdine
- White Flag, ditto

TULIP SHOW.

At Mr. Evan Hall's, Boar's Head Inn, Old Cross, Ashton-under-Lyne, June 9.

Best Pan of Six Rectified Flowers.—Lord Lilford, Gibbons's Pottinger, Lady Crewe, Polyphemus, Buckley's Flora, and Aglais, W. Peacock, Esq.

Maiden Prize.—Bienfait, A. Cook.

Best Pan of Breeders.—Sir Joseph Paxton, Maid of Orleans, Seedling Rose, Z. Peacock, Esq.

Feathered Bizarres.

- 1 Charles X., J. Newton
- 2 Magnum Bonum, J. Turner, Esq.
- 3 Lord Lilford, T. Moss
- 4 Rufus, J. Turner, Esq.
- 5 Royal Gem, T. Moss
- 6 Surpass Catafalque, J. Haigh
- 7 Polyphemus, Z. Peacock, Esq.
- 8 Masterpiece, J. Peacock, Esq.

Flamed Bizarres.

- 1 Sanzio, J. Newton
- 2 Polyphemus, W. Chadwick
- 3 Albion, J. Haigh
- 4 Paul Pry, Z. Peacock, Esq.
- 5 Charles X., W. Matley
- 6 Don Cossack, Z. Peacock, Esq.
- 7 Surpass Catafalque, S. Barlow
- 8 Pilot, J. Naylor

Feathered Bybloemens.

- 1 Violet Amiable, J. Haigh
- 2 Beauty, J. Newton
- 3 Baguet, J. Wood
- 4 Bienfait, W. Matley
- 5 Edgar, J. Naylor
- 6 Queen of the North, Z. Peacock, Esq.
- 7 Sir H. Pottinger (Gib.), W. Peacock
- 8 Maid of Athens, J. Naylor

Flamed Bybloemens.

- 1 Bienfait, A. Cook
- 2 Princess Royal, J. Turner, Esq.
- 3 Bacchus, S. Barlow
- 4 Incomparable, J. Dicken
- 5 Violet Wallers, ditto
- 6 Alexander Magnus, J. Newton
- 7 Gibbons's, J. Peacock, Esq.
- 8 Gibbons's Salvator Rosa, ditto

Feathered Roses.

- 1 Lady Crewe, T. Moss
- 2 Heroine, Z. Peacock, Esq.
- 3 Joan of Arc, J. Turner, Esq.
- 4 Lady Grey, J. Haigh

- 5 Arlette, J. Peacock, Esq.
- 6 Anastasia, S. Barlow
- 7 Walworth, W. Chadwick
- 8 Duchess of Newcastle, Z. Peacock

Flamed Roses.

- 1 Aglaia, W. Matley
- 2 Rose Unique, ditto
- 3 Triomphe Royale, J. Peacock, Esq.
- 4 La Vandicken, J. Haigh
- 5 Vesta, W. Matley
- 6 Lady Cath Gordon, W. Chadwick
- 7 Queen Philippa, J. Peacock, Esq.
- 8 Camillus, W. Chadwick

Bizarre Breeders.

- 1 Polyphemus, W. Peacock, Esq.
- 2 Sir Joseph Paxton, J. Peacock, Esq.
- 3 Earl Radnor, J. Haigh
- 4 Duke of Hamilton, W. Peacock, Esq.
- 5 Silenus, Z. Peacock, Esq.
- 6 Seedling No 1, S. Barlow

Bybloemen Breeders.

- 1 Duchess of Sutherland, J. Wood
- 2 Princess Royal, W. Matley
- 3 Friar Tuck, S. Barlow
- 4 Miss Forrest, J. Peacock, Esq.
- 5 Champion, W. Peacock, Esq.
- 6 Lord Denman, ditto

Rose Breeders.

- 1 Lord Derby, J. Newton
- 2 Queen of England, J. Hilton
- 3 Seedling No. 20, J. Peacock, Esq.
- 4 Celestial, S. Barlow
- 5 Juliet, J. Turner, Esq.
- 6 Seedling No. 5, ditto

White Selfs.

- 1 Perfection, J. Naylor
- 2 White Flag, J. Haigh

Yellow Selfs.

- 1 Min d'Or, S. Barlow
- 2 Emperor, W. Chadwick

PINK SHOW.

At Mr. J. Griffiths, Sutherland Arms Inn, Newcastle-under-Lyme, July 12.

Premier, by Mr. R. Moorley, for the best bloom of Moorley's Catherine, sold out in 1855, to T. Bailey.

Purple-laced.

Premier.—Blackeyed Susan, W. Wright

- 1 Huntsman, E. Barker
- 2 John O'Gaunt (seedling), ditto
- 3 Mango, H. Eaton
- 4 Guido, W. Wright
- 5 Auckland's Mary, E. Barker
- 6 Blackeyed Susan, ditto
- 7 Clubace, ditto
- 8 Greensides, W. Griffiths
- 9 Duke of St. Albans, R. Moorley
- 10 Pilot, E. Barker

Red-laced.

Premier.—Susanna, R. Moorley,

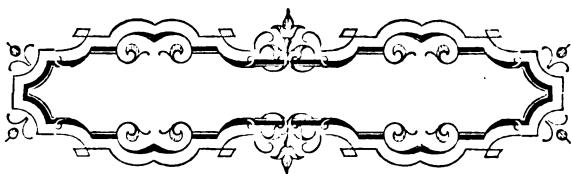
- 1 Joseph Sturge, W. Griffiths
- 2 Susanna, R. Moorley
- 3 Mary Ellen, H. Eaton
- 4 Moorley's Catherine, T. Bailey

- 5 Thirza, E. Barker
- 6 Sir William, W. Griffiths
- 7 Dr. Henworth, R. Moorley
- 8 Lady Antrobus, ditto
- 9 Dan O'Rourke, W. Wright
- 10 Professor, E. Barker

Black and White.

Premier.—Kay's Mary, W. Wright.

- 1 Beauty of Clayton, W. Wright
- 2 Kay's Mary, R. Moorley
- 3 Lady Boldhaughton, W. Wright
- 4 Blackeyed Susan, R. Moorley
- 5 Lilla, ditto
- 6 Snowball, E. Barker
- 7 Margaret, ditto
- 8 Seedling, ditto
- 9 Virgin Queen, W. Wright
- 10 Pilot, R. Moorley



JUNE.

Work among Roses and Rose Catalogues.

BY G. GLENNY.

WHO cares now to what family of Roses a new variety belongs? How long are the present silly distinctions to be kept up? Even now two growers differ as to which section a novelty belongs, and yet we have catalogues continued with the names of numerous species, and others are made by adding the word hybrid to the original title, without any pretence whatever, but such as the public would not appreciate. Why not divide Roses into such families or sections as ordinary people can understand? Some catalogues have been drawn up with a proper regard to the distinctions that everybody see and know. Francis, of Hertford, we think, made a move in the right direction, and Wilkinson, of Ealing, made considerable improvement, but we want distinctness. Florists are not necessarily scientific, and thousands who grow Roses know and care nothing about whether a variety is called hybrid China or hybrid Bourbon. What they really want to know is, whether a Rose is a climber or a dwarf,—whether it is in flower one month or six—whether it is large or small, moss or plain,—whether it blooms with a single flower or in clusters. We once before suggested that a Rose catalogue, to be useful to the million, should be plain, and Mr. Wilkinson's plan was an approach to what it should

be. For instance, he describes the general character at the head of each section, as, say "summer Roses," by which he means Roses that bloom their month in June and July, and have then no more flower, so that for eleven months out of the year we see nothing but the bare tree, which is by no means a handsome object, when not in bloom. Then, for the benefit of those who want to know the supposed parentage, he describes that by letters, at the end of each name, as H.C. for hybrid China, H.B. for hybrid Bourbon, H.P. for hybrid perpetual, and so on. All this was prudent, if not necessary, because it took away all excuse for quarrelling with his change. But, to go back to our own proposal of old: we were for making few distinctions, and these such as everybody could understand; and first we mention moss Roses, of which there are many varieties. All the world knows a moss Rose,—there can be no mistake there. If there were climbing moss Roses, let the distinction be put to them; if there were any growing in bunches, or in any way remarkable, let it be indicated or described; but the family of moss Roses should be distinguished as a class, and all peculiarities described. The summer Roses should form another division. That is to say, all those which, like the cabbage and Provence Roses, only bloom a month, should come into the list of summer Roses; and climbers should be indicated or described. So also may the breed, on two conditions: first, that the grower should know it, and secondly, that only two or three letters should be used to describe it. The advantage of this to the million is, that unless they are wanted for exhibition purposes, in June or July, the grower may turn them over without even reading them, and if they are required for exhibition, he may grow them by themselves, in a quarter of the garden which does not interfere with the general features of the place, so that he may shade them and twist them about as he likes, without them interfering with the main walks and borders. Thus we provide two divisions, or sections, or families, call them which you will, that the most

inexperienced florists can understand, and the section will consist of many differently described Roses, Roses belonging at present to half-a-dozen sections, or more, and that will only require for the learned growers the letters to indicate what they once belonged to, such as Provence, cabbage, and so forth; and nothing is more necessary than the separation of these summer Roses from all the rest, because those who care to have their gardens in good order would never trouble their heads about summer roses. And now, to form a third section, we should take in some from all the ridiculous divisions into which some Rose growers split them; and this section might either have letters to describe climbers, or noisettes, or dwarfs, or be subdivided into Roses with large blooms and full centres (which might be called show roses), small blooms, and noisettes; and all three of these subdivisions would contain climbers and dwarfs. It would therefore stand thus,—the family itself should be called “CONTINUOUS-BLOOMING ROSES.” To this division would all persons turn, if they wanted Roses as permanent garden ornaments. The only Roses it should comprise are those which flower all through the season, until the frost cuts them off. As to whether they were China, Bourbon, perpetual, or hybrid, not one in a thousand would care a jot. Thousands grow *Devoniensis*, *Geant des Batailles*, *Souvenir*, &c., who know not to which of the present numerous sections any of them belong. At present, we have nothing to indicate continuous-blooming. A friend of ours intending to have Roses all the year, ordered the whole of his stock from the list of “perpetuals,” and fancied, as all people of common sense would, that “perpetual” means continuous, whereas it is just as likely to be applied to a very shy-blooming variety; in fact, many so-called perpetuals are very shy bloomers. Perpetual is a foolish name, applied to varieties which have no more pretensions to it than a white Rose has to be called a “damask;” yet in another silly section, called “damask,” there are roses of all colours. What would a plain plodding

man, who knows but little of Latin, understand by "Rosa alba," but white Rose? It means no such thing,—several coloured Roses are found in a section so called. "Damask Roses" comprise varieties that do not approach that colour, "Rosa alba" describes a section containing numbers that have no pretensions to white; but colours may be easily described, and there can be no difficulty in settling the family of a Rose, when we have only to decide on one point,—Is it a continuous-blooming variety? The Scotch Roses are a very distinct family, and may certainly have a list to themselves; but all the rest, that is to say the curious roses that will not come under one of the three distinctions already mentioned, may be put in a sort of *omnium gatherum* list, under the head of miscellaneous. At present, the catalogues contain more than twenty sections, and we might pick some out of each, and get very little variety either. We have Provence, moss, hybrid Provence, French, Rosa alba, damask, Scotch, Sweetbriar, Austrian brier, Ayrshire, Rosa multiflora, evergreen Roses, boursault, Banksian, hybrid climbing, perpetual, China, tea-scented, miniature, noisette, musk, Macartney, Rose mycophylla, and one single catalogue of continuous-blooming would take the very best from most of the sections here mentioned.

We only hope that the first Rose grower who puts out his catalogue after this fashion will send us a copy as soon as possible after publication, when we get a catalogue properly arranged, with lists of,

1. MOSS ROSES of every kind, and letters to indicate any peculiar character.
2. SUMMER ROSES, comprising all that go out of bloom at the end of their month of flowering, such as all the varieties of cabbage Rose, Provence, &c.
3. CONTINUOUS-BLOOMING ROSES, and this will be supplied from many sections, and may have noisettes, climbers, and those with large flowers distinguished by letters.
4. SCOTCH ROSES may be worth a list, although they are summer Roses to all intents and purposes; but

they can never be wanted among other Roses, and are therefore best alone.

5. MISCELLANEOUS. This might include all that cannot be classed among the foregoing. The great and most important division is that of summer or temporary Roses and continuously-blooming Roses. The other two families, moss and Scotch, are so distinct that they have places to themselves, but this should comprise whatever is peculiar, curious, or remarkable, that cannot well be associated with the others.

This is not the first time we have suggested a new classification for Roses, [adapted to the multitude who delight in the possession of good Roses, and who care no more for their origin than they care to know who made the malt their beer was brewed from. We know that great Rose fanciers, like the owners of race horses, like to know the pedigrees of their favourites, but that is no reason why the thousands who only look at the quality should be pestered with all the mysteries of the present catalogues. Common people are not believers in palpable misdescriptions. It is no use to tell them in a book that a coloured Rose is a white one, or that a white Rose is a damask, and they are very apt to conclude that the whole thing is a humbug; and what we really want, now that Rose growing is getting almost a universal fashion among all classes who have a piece of ground, is that dealers should simplify their catalogues as much as possible, to meet the notions of the humble cultivators. Imagine a mechanic of some manufacturing town taking up, say Rivers's catalogue, or even his *Rose Amateur's Guide*, and finding hundreds of Roses described under their various heads. What can he do towards selecting a dozen for his bit of garden at the outskirts of the place? He can find moss Roses, but he does not want them. He next comes upon "the PROVENCE," and what does he find? Many flowing descriptions of fine flowers, but not a word about their blooming only a month. If he choose

from this family, and his neighbour choose continuous-bloomers, he has the mortification to see his own bare of flowers and his neighbour's in good order. How is he to know, from any thing he can read in the generality of catalogues, what are the sorts best for his purpose? With the catalogue the other way, he would in an instant see that there were summer Roses which only bloom a month, and that he next came to a list of Roses that bloom continuously. Here he can select his colours, sizes, and habits, and be in no doubt as to what he obtained and what he might expect when it bloomed. So much in behalf of a revision of the Rose catalogues.

CULTURE OF THE ROSE.

People now begin to be their own Rose makers. A few stocks set them up. These are to be procured, at the right season, at any of the nurseries, and when their roots are nicely pruned and, they are planted in the ground, the same as established trees would be, they have nothing to do but keep them watered now and then, until they grow, when all the side shoots down the stem must be rubbed off, except the strongest two near the top, or the strongest near the top of the growing part; and having selected the one that is strongest, cut down the stock to an inch above it, that all the strength may be thrown into that and the nearest one below it; for it is on this one strong shoot that we must bud, and that will be ready about the beginning of July. If we have any Roses in the garden that are inferior, and we wish to change them for better sorts, all the head should be cut away, but two or three of the strongest shoots, close to the stock. These will grow, by the end of July, strong enough to bud upon, and may be treated just the same as a stock would be treated; but let no side shoots, nor any other shoots grow at all, and when the new growth shows for bloom, pull off the buds and let none go to flower.

BUDDING.

The preparation of the stocks for budding consists of merely pruning. All the lateral shoots must come off, all the large thorns be shaved off, and the branches, whether there be one or two to a stock, must be shortened, that you may get at your work well and without wounding your hands. Thus prepared for action, you will procure your buds of the sorts of Roses you wish to grow, and bear in mind that you have to introduce the bud beneath the bark of the stock you are going to work, and that the bud is to form a branch in the first instance, but which branch may be made to form the head of a tree afterwards, or a large portion of it. You have therefore to put it in a place strong enough to hold the weight, consequently the place should be as near the base of the branch as possible, and of course close to the trunk from which the branch springs. With your budding knife, make a slit in the upper surface of the bark, from the place where it joins the trunk upwards, an inch long; near the top of this slit, make a cross-cut, and with the thin end of the handle, or with a piece of hard wood, made as thin as a blunt knife, lift up the bark on both sides. Then take the branch that has the bud on it, and, putting your knife in, half an inch below the bud, which has its leaf on it, in a slightly sloping direction, shave off a thin portion of the branch, bring your knife out again half an inch below the bud, tuck the lower part of the wood, with its bud, under the bark of the stock, where the cross-cut is, and slide it down as near the bottom as you can, and if any part of the bud wood is in the way, cut it shorter. Those who are dexterous at budding will make the wood below the bud very short, and by that means push the bud almost close to the base. Tie the bud in its place with bast matting, and loosely tie a good handful of damp moss, to keep off the sun. In cutting back the branch on which you bud, you leave a shoot, however small, to draw the sap past the bud. In very hot weather, watering over the

moss is beneficial, as it prevents its being dried up with the sun, and this is all you can do for the next few weeks. In about a month, you may examine the buds, and see if they look plump and green, and after awhile, you may untie the bast matting, to loosen it a little. So far as we have gone, our direction is applicable to stocks of any height, or old Rose trees changed; but as you bud two or three branches in an old tree, to change the sort, some of the old wood must remain, and you must be vigilant to see that none of it grows, for as fast as it shows a bud anywhere it must be rubbed off. It will be some time before the second stock as it were, that is the Rose first worked and afterwards budded with another, leaves off pushing its growth. When the buds have taken, the ties should be removed altogether, and all the growing part of the stock be cut off at the next joint above the bud, and every shoot that pushes, all over or at any part of the stock, must be removed at once. As the bud grows, it will be necessary to stop the shoot at the third or fourth eye, and so encourage the formation of a small head the first season, or, if allowed to grow without being stopped, to tie an upright stick to each stock, to reach a foot above it, that the growing bud may be tied to it, to prevent the wind from breaking it out. This is only necessary when you intend the branch to grow its full length, for when it is stopped at four or five inches high, by pinching the end out, the wind has little or no power over it, and no support is necessary. At intervals, and not very long ones, the stocks must all be examined, to see if any shoots are growing; for a strong shoot, or two or three weak ones, would rob the growing bud of its nourishment, and, if not removed, kill it. Therefore, to neglect them in the growing time, and allow the stocks to push or throw up suckers, is to risk the health and life of all the growing buds.

AFTER TREATMENT.

At the end of the season, when the growth is over, they will all remove well, and they should be carefully

taken up, without breaking the fibres, and planted where they are to bloom permanently; or if done for sale, they may remain till wanted. The pruning of them is an operation which requires some consideration. All the weak shoots may be removed altogether, cut clean out, close to the base, with a sharp knife, so as not to injure the bark; any straggling branch must be shortened, and the form of the head must be studied a little in what may be called the first pruning. Generally speaking, we may cut any branch back to two or three eyes, but we do not make this a rule the first year, because we desire to give a form to the head, and leave some branches longer than the others. It is only when the head of a Rose is formed, that the new wood may be always cut back to two or three eyes, except where a branch is wanted to fill out the head, when it may be left the length required. But we have to make allowance for the growth of new wood, when we regulate the branches, and then, when the buds push in spring, rub off all those that grow inverted or in any wrong direction, for they have a bad effect,—they take nourishment which should go to the useful branches only, they crowd the head, and that invariably weakens the growth. We are not fond enough of the knife to make work for it, and where some people would have a dozen branches to cut away, we rarely find one, even in fruit trees; but in Rose trees it is all important to keep the head free inside, to have no extra harbour for vermin, to be able to see how everything goes on. By keeping the head clear, we can see if a brier shoot “stops the way;” but if the head be crowded, the stick might grow among the branches of the head, and not be noticed till it had done immense mischief. But when the tree has been well formed, which should be the second season, prune out any weak branches, and all that grow inwards, or cross each other, and which, of course, have escaped notice when they ought to have been rubbed off at starting, and shorten all the new wood to one, two, or three eyes, whichever suits the form of the tree best; taking care that the top eye that you leave shall point

outwards, but be still guided by the form of the head, or rather the form that the new shoot will give to the head, when it grows and blooms.

THE SOIL FOR ROSES.

Bearing in mind that the wild brier, upon which we bud roses, grows in ground that cannot be rich, and that it grows luxuriantly in all situations, we are all too anxious about enriching the soil for them. Strong it ought to be; therefore, on light ground, it is more serviceable to add good strong loam than dung. We can scarcely have ground too rich for Roses on their own bottoms, but we may do so with briers. A spadeful of loam from rotted turf, mixed with light lands, will give standard Roses or briers all they want. When a Rose is planted, a good stake is necessary, because the head takes the wind very much, and would disturb the root, if it did not blow the tree down altogether. It is necessary also that the fastening be looked to well and kept sound.

OF ROSARIES.

A rosary is a collection of Roses planted according to the taste of the owner, and one of the most simple and effective is a double border, with a walk between them, and three rows of plants in each border,—the front row dwarfs, the second row on two-foot stocks, and the back row on four-foot stocks,—say the walk six feet wide, and each border five feet. The dwarfs planted within a foot of the edge and two feet apart; the next row eighteen inches from the first, and planted alternately, opposite the vacancies of the first row; and the back row eighteen inches from the second, with the plants opposite those in the front, thus,

```

      *      *      *      *      *      *      *
    *  *  *  *  *  *  *  *  *
      *      *      *      *      *      *      *
  
```

In the back row, there should be a pair of climbers every twenty or thirty feet, and arches to go across the whole, to enclose as it were the borders and walk. If

these climbers rose forward in the border, amongst the others, the arches would interrupt the view of the two banks of flowers, which should be seen from one end to the other. The arches would span fourteen feet, and must therefore be of iron, and the Roses would grow up and meet each other in the centre. In selecting the Roses, we should not aim at an extensive collection, but look rather to habit, colour, variety, and contrast, and have the same sorts opposite each other. Above all things, have those only that bloom continuously, and endeavour to place light and dark alternately, or at least avoid having two of a colour next each other in the same row. In the proper season, these two banks of Roses will be masses of flowers, and continue in good order for a very long period. If the weather be very dry the first season of planting, water them once or twice liberally, soaking the whole ground to some depth. After they are once established they will not require it. In such a thicket of Roses, there is some danger of the stocks growing unperceived, but you must look for the enemy, and remove him; for, as we have before observed, suckers, and the growth of the brier above-ground, very soon destroy the head. And you must be liberal in the use of the garden engine, with a fine distributor on it. Play on them, in the way of syringing, with some force, and frequently; for it disturbs the greenfly, keeps the foliage clean, and promotes the health of the whole summer's growth. If any branches grow too rambling, cut them back, and indeed those sorts which grow too much ought never to be worked as standards, they are only fit for climbers, and cannot form a handsome head long together. If you make your rosary any other form, keep to the same rule of planting. Three rows or more may be always made to show off the family of Roses in perfection. Some prefer a circle, others form an avenue of climbing Roses, arching them over all the way. This, of course, is for climbing Roses only. Others again content themselves with the trees in rows, or clumps, or beds, but the choice of varieties and general treatment must be the same.

Tropæolum Tricolorum.

MR. EDITOR,—Hitherto, in the west, and especially so in Cornwall, *Tropæolum tricolorum* has been considered in every respect a greenhouse plant, requiring in-door culture ; in fact, as such I have grown it for four or five years. I determined, however, in the autumn of last year, to give the plant a trial in my garden, and selected a strong root for the purpose. It has, both as regards growth and blooming, far exceeded my most anxious expectations. At this moment it is covered profusely with abundance of young bloom, yet to open. The rich tricolor flowers are exceedingly attractive and beautiful. The plant is trained to some trellis work in front of my house, with a southern aspect. From the frost and snow of the past winter it does not seem to have suffered, the foliage always maintaining its proper form and colour. I would strongly recommend a trial in the open ground to all admirers of this gem, and I feel satisfied that, should the weather not prove too severe for its culture in the midland and northern counties, it would be more generally grown and appreciated. I was not so successful with *T. brachyceras*, a plant of which I planted by the side of the above ; but after it made a little growth of about two or three inches, it was cut down by the frost, and I have seen nothing of it since.

W. C. P.

Penzance.



The Ant Lion.

ALPHONSE KARR, a German writer of no ordinary talent, gives the following description of the Ant Lion :—"The soil is sandy and hot, the grass is thin,—there are no flowers to be seen : it is not, however, a desert ; here, in the sand, is a little tunnel of two inches in width and nine in depth, dug spirally,—it is a

trap made by a sportsman ; but see, here he comes to finish his snare. The ant-lion lives on prey ; it is a sort of yellowish worm, which appears grey on account of the labours to which it gives itself up, and which cover it with sand and dust ; its head large and flattened, and terminated by two horns, which have in some degree the form of those of the stag-beetle. The prey which supplies its food is nimble ; it consists of flies, ants, woodlice, and spiders, and as it is only able to take a few steps at a time, and that backwards, it does not think of running down its game, but employs stratagem. There it is, working a spiral pit, which begins at the surface, and is to attain a depth of several lines ; at each step which it makes backwards it stops, and with one of its feet loads its flattened head ; the head being loaded like a shovel, it gives it a shake, and throws out of the hole the few grains of earth it carried. This is a long and fatiguing operation ; nevertheless, a quarter of an hour suffices for the performance of it. There is the trap completed ; the sportsman places himself at the bottom, burying himself in the sand, leaving out only his eyes, which are twelve in number, and two horns, which he stretches as far from each other as possible. The ant-lion does not stir,—it might be believed to be dead or asleep ; its horns do not betray the least motion. Ah ! there is some game ! An ant, going rather too close to the hole, makes a grain of sand slip in, and falls with it into the trap to the depth of half a line. It climbs up again, but the precipice is steep, and the grains of sand give way beneath its feet ; it loses ground,—it is at least six grains of sand lower than it was. One effort, however, has recovered it ; it gets up again. Then the ant-lion, charging its head with sand, launches with violence a shower of dust at the ant, which makes it lose its equilibrium, and slip down ; but it clings to the side, and endeavours to reascend. A second shower of sand falls upon it, and makes it lose the little ground it had regained. Then the hunter precipitates its blows, and soon the unfortunate ant, brought down at last by the moveable soil which rolls

away under its feet, and by the projectiles which are launched at it without intermission, ends by falling to the bottom of the tunnel, between the expanded horns of its enemy ; the two horns close and pierce it, whilst seizing it, through and through ; and then the hunter becomes motionless : its two horns are trunks, through which it sucks its prey. In a short time nothing remains of the ant but the skin and the head. The ant-lion does not eat the heads of its prey,—the head is not to its taste ; it places the relics upon the catapulta which serves him for a head, and throws them out of the hole. Then it covers itself up in the sand again, and resumes the position it was in before the arrival of the ant. The place is well chosen ! Here comes a wood-louse, which the heat of the sun incommodes, and which abandons the wall to find elsewhere some cool and moist crack in which it may conceal itself. There it is upon the very edge of the trap : it slips,—the ant-lion plays off its artillery ; the wood-louse gets up again. In vain the hunter redoubles its blows ; the wood-louse escapes. A gnat, in its turn, contrives to fall into the snare ; but it expands its wings and escapes, in spite of the shower of sand which its enemy launches at it. The wood-louse, in escaping, makes great chasms in the tunnel ; and this, no doubt, together with the ill-success of the last two hunts, determines the ant-lion to go and lay his ambushes elsewhere. He reascends his pit, and goes away, always travelling backwards, to seek a spot more favourable to his views. But stop, you stupid creature !—take heed ! It has no longer time : it has fallen heavily into the hole, at the bottom of which another hunter—another ant-lion—is in ambush. The latter seizes it, still stupified with its fall, fixes it between its two horns, sucks it, and makes an excellent repast of it. Is it excess of hunger, or anger at seeing another hunter fall into its ambush and spoil it, that urges it to this act of ferocity ? or do ant-lions see nothing in their own species but a variety of game and a tempting food. The ant-lion is not condemned to keep thus upon the earth always : some evening in June,

after having enjoyed a good dinner, it will bury itself deeper in the sand than usual, without leaving its horns out. There it shuts itself up in a ball, made of grains of earth stuck upon a web or cocoon of silk, the inside of which is whiter and finer than the most beautiful satin. It soon becomes a sort of dragon-fly, which cuts with its teeth the cocoon which encloses it. This fly, which has at first the appearance of those dragon-flies that we have met with, and whose larva lives in the mud of water, differs from them in several points. In the first place, it has not the same degree of magnificence in its dress ; it is grey, with a little yellow border on each wing ; besides, its broader wings are also larger than those of the dragon-flies of the meadows, and, when at rest, are placed over its body, which they entirely cover, in the form of a roof, whilst the other keeps them spread.

A Note on the Ranunculus,

FOR THE MONTH OF JUNE.

By the time these lines reach the eyes of your readers, the Ranunculus bed will be an object of considerable interest. We may presume that it is a flat bed, lying east and west, very little raised above the surrounding paths, and containing named flowers, and that it is margined with a neat painted strip of board. We may further presume that it has, in straight rows, and at regular distances, the growing plants, with compact dwarf foliage of varied hue and shape, and, what is of more interest to view than all, the flower stems rising from the centres of these plants, terminated with small round green buds of future promise. The Ranunculus happily has few enemies (the wireworm excepted); the acrid flavour of its leaves renders them not very acceptable to insects ; but still here and there may perhaps be found a depredator in the shape of a green cater-

pillar, which would, if not removed, make an expensive meal on the young buds of your favourites. The days, it may be, are hot and long, and, to prevent a too rapid development of the blossoms, a shade for a few of the midday hours will be advantageous. This should be of materials that will admit air, or be placed on the sunny side of the bed only. Flake hurdles admit air suitably, or thin canvas may be arranged so as not to exclude the light and draw the plants. A timely disbudding of the lateral flower stems will give strength to the main leaders and secure finer blooms. Water applied between the rows copiously and seldom, rather than little and frequently, is to be preferred. It will do the work more effectually, and sometimes admit of the choice of a cloudy moist season, rather than a harsh dry one. The second and third weeks of this month will prove of special interest to the cultivator, and the season should be embraced to make suitable notes of the qualities of the different varieties. These will be of use to the amateur when the flowering season is past, and the choicest pleasures of the florist consummated.

CAREY TYSO.

Wallingford.

Cultivation of the *Calceolaria*.

THE cultivation of the *Calceolaria* from the seed requires a little extra care in the early state of its culture. To insure success in the raising of seedlings, it is requisite to attend to the following directions as early as possible. The seed should be sown in pots, prepared in the following manner :—The pot to be half filled with drainage, over that rough siftings of the mould, and the surface covered with soil as fine as possible, half of which should be composed of silver sand. When prepared thus it should be watered with a fine rose, immediately after which sow the seed carefully without any covering of soil. The pots should then be

placed under a close frame or hand-glass, in a shady part of the garden (no artificial heat being required). In large establishments, of course, they may have propagating or other houses that will do, where the same kind of moist temperature could be obtained, but any exposure to the sun must be carefully guarded against by mats or paper. If the situation is of proper temperature, they will require watering very seldom. Directly the seedlings are strong enough, they must be pricked off in pots prepared as before, and placed in the same situation : from the store pots they will require to be potted off singly ; after this the plants will grow very rapidly. Through the winter, the plants will thrive well on the shelves, near the glass, in the green-houses ; and, to obtain fine specimens, they must be shifted on freely till the flower-stalks have started, and should always be smoked with tobacco directly the greenfly appears, as no plants in cultivation so readily suffer from this insect as the *Calceolaria*.

It is necessary to remark, that one of the most frequent causes of the appearance of these injurious insects is the plant becoming *root-bound* ; to avoid which evil, it is important that it should frequently be re-potted during the growing season.

These remarks will apply also to the cultivation of the *Cineraria*, except that this plant is more hardy, and will thrive with less care.

E. G. HENDERSON & SON.

Wellington Nursery, St. John's Wood, London.

Plants and Animals compared.

MR. EDITOR,—I am really proud that you have taken so much notice of my papers on the science of cross-breeding flowers: they were given to my fellow labourers who are loving workers in Eden's bowers, with the most pure intention of doing good, and I sincerely trust they will benefit the rising generation, when I shall be no

more. I may mention, and that to the honour of my countryman, Mr. Glenny, that by careful purusal of all his works on gardening and florists' flowers, &c., and that on botany, by the highly scientific Professor, Balfour, Edinburgh University, I attained all the knowledge I humbly profess.

Again, Mr. Editor, I rejoice to see each number of your work improving, yet, it is visible to the most unobservant, while, on the other hand, when I sit down to make a meal or repast on the *Gossip*, even with all their drain from granaries and golden stores, the sample brought forth seems meagre and indigestible food. I am afraid they have not yet possession of the right key, the produce of their gleanings being such stuff as Sources of Food—Gum—Sugar—Hottentot—Whiteness of Jamaica Negroes' Teeth—Ancient Gardens—and a long faldaral to readers. This, I would pronounce, no very vaunted improvement in gossiping. Do you know, Mr. Editor, if either of the gossipers was assistant dominie under the late scurrilous pedagogue, Doctor Johnson? One of them has undoubtedly been of that class, and an apt pedant too, and no mistake. I ask you, Mr. Editor, to record these words, not with any ill feeling I have towards the *Gossip* company, but only that it may be a warning to them to steer clear of shoals and quicksands. And, Mr. Editor, I have got my stomach emptied, and feel a craving about the pit thereof for a digest of plants and animals, and, although your humble servant does not lay much claim to originality in this detail, yet he trusts it may not be without interest to your numerous readers at this season.

Animal and vegetable existences, in some respects, resemble each other, and in others they differ. The first and most important resemblance between plants and animals is, in their possessing what has been called a living principle; this constitutes the chief difference between organized and unorganized existences, and it is only while it exists in the former that these exhibit the other qualities, by which they are distinguished from brute matter. An

animal breathes, moves, and feels, and performs certain actions for a time; this is animal life. It then ceases to show any of these properties; it lies motionless and insensible, it undergoes rapid decomposition, and is resolved into its original elements. This is death. And something analagous to this takes place in plants. The living principle appears, indeed, under a different and less perfect modification, but still it is there. Although vegetable existences have no voluntary motion, yet possess certain vital functions, they select and secrete their food, they grow, they expand and flourish. This is vegetable life. After a time their functions cease, they droop as the Pansy on a hot summer day, they decay, and are decomposed. Their life is fled. In both animals and vegetables, the principle of life is endowed with a power of repairing injuries to a certain extent, so as to reproduce decayed or destroyed parts. In both, also, there exists a power of reproducing the species; nor is the resemblance less remarkable in regard to a property, the existence of which, in vegetables, till lately was but little known—that of the circulation of a fluid through every part of the body. A fact that the blood circulated through the veins of animals never escaped observation; the principle on which this remarkable function depended, was but very lately discovered, but it does not seem to have been suspected, till within these few years, that there was an analagous circulation through vegetable substances. That sap existed in plants, indeed, was a familiar fact, and that in greater profusion at one season than another, and that there is a regular and periodical circulation of sap from the root through the stem of the plant to the branches, buds, and leaves, and back again through the bark to the root. Wonderful, indeed, that this circulation is as essentially necessary to the life and growth of vegetables, as the circulation of the blood is to the life and growth of animals. In the manner of the propagating the species, too, there are some curious resemblances between the vegetable and animal creation. The whole class of plants, like animals, with few exceptions, is

divided into male and female, and the majority of plants, in their flowers, possess the organs of both male and female, for the propagation of their species. As was supposed, Adam, in Paradise, when first created, was endowed with a like power in himself; and why not? But, poor man, he was solitary, alone, and excited pity, and so Eve was given him as a partner, to bear children, it being considered too burdensome for him both to bear, and attend to the cultivation of flowers, vegetables, and fruits. Indeed, the whole race of plants, from the moss to the tree, except, perhaps, the fungus family, propagate their species by means of seeds.

Plants, as well as animals, select and secrete their food, but there is a marked difference, both in the nature of the food, and in the process by which this nourishment is conveyed and appropriated. The vegetable, adhering to the soil, draws food from thence, through the medium of roots, by mechanical action, without volition, without feeling, and without locomotion, and that food is inorganic matter. The animal, on the contrary, seeks for its food by a voluntary action, receives it into a system by a mouth, digests it in a stomach, and rejects crudities by an intestinal canal; its food is organized matter, either animal or vegetable.

The chilly nature of the season is not the only cause of the changes in the vegetable kingdom, which begin in autumn and are consummated in winter. The disappearance of flowers and fruits, the fall of the leaf, and the general sterility which prevails, are evidently the indications of a cycle belonging to the constitution of this department of nature, which corresponds with the cycle of the year, and affords, by its existence, a new proof of wise adaptation. In the extremes of climate, taken on the average, we have, as it were, permanent summer on the one hand, and permanent winter on the other, but in the temperate regions we have a regular alternation and modified heat and cold, which requires a different constitution of the vegetable creation, and that constitution has been bestowed. We here find the gradual development of seeds, and shooting forth of

buds and leaves in spring; the vigour and prime of vegetation in summer, its maturity and commencing decay in autumn, and its temporary death in winter. Now, what deserves to be particularly remarked in this, is the adjusted correspondence of this annual revolution in plants to the precise circumstances of the character and duration of the seasons. Yes, I may here say, many an ardent florist and his lovely wife have seen all their gems of spring, summer, and autumn, yet, on the return of the season, the loved and lovely are beneath the grassy hillock. Here, I may well bring in, that the everlasting disputes about the points of flowers, should be conducted in a calmer and more friendly style. None but men of the highest principles should be allowed to judge florists' productions. Oil, then, would be thrown on the troubled waters, and flowers would again become objects of admiration, instead of causes of variance. It cannot be denied, that *certain* floricultural societies have been the means of improving immensely the art of floriculture, considered merely as a human art; but if they have been the means of divesting flowers of the beautiful sentiments formerly associated with them, and of darkening those rays of heavenly light, which, falling on the fair blossoms of the garden, should be reflected back towards the spiritual eyesight of all who claim relationship to the dressers of Eden, their benefits have been dearly purchased, and the establishment of new societies of a similar kind may be objectionable in one sense, while commendable in another. But it is to be hoped that floriculture will be rescued from its present position, and that flowers will soon be no longer causes of malice and anger. This desirable consummation may, however, be delayed till the time when Eden shall be restored to this world. Mr. Editor, pardon my digression, I am so anxious about animals that I forgot to return to the vegetable creation; now for another hit at it. The stimulants of heat and cold exercise a considerable influence in promoting or retarding the periodical changes in the vegetable world, there can be no doubt, and this is just one of those wise contrivances

which indicates design, as, without the modifying power, a slight variation in the temperature of the season, such as frequently takes place in all countries, and especially in a changeable climate like ours, might be productive of fatal effects; but the influence of heat and cold does not extend beyond a certain range, and is undoubtedly controlled by another principle which may be called the natural constitution of plants. The functions of plants have a periodical character entirely independent of heat and cold. Such stimulants could not produce the effects which annually take place, were not the plants formed, by the Author of Nature, to run their annual cycle. Now, let it be observed, that the year might, by possibility, be of any length; instead of extending to twelve months, it might be completed in six, and all the seasons might be comprised in that period, or its revolution might be lengthened to double, or fourfold its present period. In either case, the adjustment which now takes place between the seasons and the constitution of plants, would be entirely destroyed, and an utter derangement of the vegetable world would take place. The processes of the rising of the sap, of the formation of the proper juices, of the unfolding of leaves, the opening of the flowers, the fecundation of the fruit, the ripening of the seed, its proper deposition in order for the reproduction of a new plant—all these operations require a certain portion of time, which could not be compressed into less space than a year, or, at least, could not be abbreviated in any very great degree. And, on the other hand, if the winter were greatly longer than it now is, many seeds would not germinate at the return of spring. The pairing, nesting, and hatching occupy each its particular time of the year, and, together with a proper period of rest, fill up the twelve months. In every species, except man, there is a particular period of the year in which the reproductive system exercises its energies. And the season of love, and the period of gestation are so arranged that the young ones are produced at the time wherein the conditions of temperature are most suited

to the commencement of life. The beautiful variety of shades in our woods and groves, towards the close of autumn, which the most inattentive observer must have admired, arising from the preparation which nature is making for the winter state of our shrubs and trees. The functions of the productive season are ended, the forest trees having completed their annual growth, the fruit-bearing trees having yielded their stores, and the leaves, which performed such an important part in these processes, being no longer useful, are to be dropped, that they may, by their mingling with their parent earth, supply the waste of vegetable soil, and repair its exhaustion from the efforts of the preceding year. The sap, which has arisen profusely in the beginning of the autumn, to aid nature in giving maturity to the fruits, and vigour to the young branches, and thus to crown the labours of the year,—having performed this important office, has begun to flow downward through the inner integuments of the bark, there completing its periodical circulation. The leaf and flower bud, distinct, to be developed in the ensuing spring, have been already formed, and are carefully shut up in their winter cerements. The leaf falls. The tree, exposed naked to the wintry blast, is rendered, by a powerful provision of the all-wise Creator, proof against the injurious effects of frost. It is in a state of hibernation, like many beasts and insects, for here, too, the analogy of nature is striking. It has fallen into its winter's sleep. The proofs of this state of torpitude are numerous; among these, the most familiar is, that of the capability of removal, without material injury, to another place; there is no size or age of a tree which would prevent it from enduring transplantation at this season, with perfect success or safety, provided, only, it could be effected without greatly injuring the root, or any of the delicate small white fibres, and it is only in winter that such an experiment can be performed with any chance of success. Why? Because the powers of nature are then suspended, the plant has ceased to draw nourishment from the earth, and its

vital principle, though by no means extinguished, is in a state of temporary lethargy. Now, the importance of this state of plants in winter will be obvious, if we consider the condition of the soil and climate of temperate regions during that period. The genial warmth, which caused the juices to flow, is gone, the ground is frequently rendered, by frost, rigid, and almost impenetrable, and tempestuous weather would endanger the destruction even of well-rooted trees, did not the removal of the leaves leave a free passage to the wind through the branches, and the cold would blast the delicate fibres of the young shoots; all these dangers are either entirely provided against, or, at least, rendered by no means formidable, by the torpidity which invades the vegetable creation. The plant still lives, but its food is gone; its active operations would expose it to be the sport of the angry elements, and, therefore, it has retired within itself, like the coiled hedgehog, to sleep out the ungenial season, and to prepare, with new vigour, for the exercise of its renovated powers in the coming spring. In plants, there is a living principle, which, of itself, resists, to a considerable extent, the effects of cold. But the Author of Nature does not rest the security of vegetable production on this principle; on the contrary, the safety of the bud on which the future existence of the plant so materially depends, is provided for by its careful envelopment in plies of scales, or, within a downy substance, besides being often united together by a coat of resinous matter; the intention of this kind of protection is distinctly indicated by the fact that it occurs only in Northern countries, the buds of trees, in milder regions, being destitute of the scaly coverings. In tropical regions, the leaf or flower not requiring any such means of safety, start into existence at once, without the intervention of buds — another proof of the designing hand of Nature in this provision. Of those plants that survive the winter, many die down to the root, and thus, like numerous animals, burrow, as it were, under ground, where, in virtue of their combined torpidity, and vital energy, they remain secure from the

attacks of frost, even when it penetrates to their retreats. Here, some of them are secretly preparing mysterious internal processes for the coming spring, while others appear to lie entirely dormant till more genial weather awakes them from their deep sleep.

Again, other classes of herbaceous plants continue to brave the rigours of the winter, covered with a cold, but a bright mantle of snow; of these species which survive the winter, some are biennial, and others perennial, and, with respect to the former species, though their life may be prolonged, by transplanting them, and thus retarding the period of their flowering and bearing seed, yet no artificial means can prevent their decay, after they have provided for the future propagation of their species, by exercising this important function.

“He marks the bounds which winter may not pass,
And blunts his pointed fury; in its case,
Russet and rude, folds up the tender germ
Uninjured, with inimitable art;
And, ere one flowery season fades and dies,
Designs the blooming wonders of the next.”

And now, Mr. Editor, to conclude. I beg to say I have forwarded you the above, humbly trusting it may benefit the young and inexperienced florist, and who, though a true devotee of Flora's charms, may not possess, or have the means of purchasing, the key to garners, stores, and granaries.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

Cultivation of the Cineraria.

BY GEORGE TAYLOR, GARDENER TO HUGH JOHNSTON, ESQ.,
DANSON, KENT.

[Continued from page 184.]

WHEN requisite, the plants are shifted into well drained six-inch pots,, using the same compost as before, and treating them the same in the frame. They now require a liberal supply of water at the root, and frequent syringing overhead, for if allowed to suffer for want of

water, they soon show signs of neglect. By the end of September, they are large enough to receive their final shift into thirteen-inch pots. These pots are well drained, that is, a flat tile is placed over the hole in the centre, and over this some rough broken pots, succeeded by a layer of finer material of the same kind, then two inches of rough loamy peat, of the size of walnuts, and three or four inches of the following compost. Equal parts of loam, sandy peat, and leaf mould, one-sixth rotten sheep dung, a handful or two of silver sand, and a small portion of rough charcoal, all well mixed. When finally potted, the plants are returned to the frame, and placed thinner, close to the glass, on a good layer of coal ashes, allowing a free circulation of air after they have taken root, syringing overhead occasionally, and keeping down the greenfly by frequent fumigation. The plants will now begin to throw up flowering stems, which are stopped and pegged down to the surface of the pot, and this process is continued to the end of October, or not later than the 10th of December, to have bloom in January. When dull and frosty weather occurs, I remove the plants to the greenhouse, and place them thinly on the front stage, near the glass. They here receive occasional watering, with manure water. The thrip sometimes becomes troublesome, about the time the plants show for blooming, by eating the petals of the flower, and consequently causing abortion. A dusting of sulphur is necessary, and is best done when the foliage is dry, but must be washed off in a few days. Mildew is known to *Cineraria* growers, but I never have any. The best means to prevent it is a proper supply of water at the root, a free circulation of air at all favourable times, and, above all, attention to cleanliness in the house. A temperature in severe weather, not exceeding forty degrees by night, and forty-five or fifty by day. The great enemy to the *Cinerarias* during winter, if not guarded against, is too close proximity to flues or pipes. As the plants proceed in growth, they are tied out, or, what is better, I use long and short pegs.

Fruit Culture.

No. III.

As the Grape is universally cultivated, and occupies such a high position amongst our first-class fruits, I have chosen it for the subject of the present paper, hoping my remarks may be useful to the readers of the *Midland Florist*. Vines are propagated by seeds, cuttings, layers, and single eyes, but from seeds only when it is desired to produce new varieties, and certainly with the grape, the hybridist has a wide field for his exertion. Cuttings and layers are but very seldom resorted to : as it is found from experience that the single eye produces plants much better, and quicker, than any other mode ; budding and grafting are also sometimes practised when it is desired to change the variety of grape without entirely destroying the old established plant ; of these two modes, budding is far preferable ; but we will commence with the single eye. Take the pieces of one year old wood, at the time the Vines are pruned, and select the strongest eyes. If the Vines are pruned in October, as is generally the case, the pieces may be placed in some moist earth, so as to preserve the vital powers, until they are required, which will not be before February or March ; then take the pieces, and cut off the strongest buds, leaving about an inch or an inch and a half of the vine attached. Pot each singly into a sixty pot, burying the eye about half an inch below the surface, plunge in a tolerably brisk bottom heat, either in a hot or back bed of the pine stove, or any other convenience that may be at hand. In two or three weeks the plants will show themselves above the soil ; they will then require a regular temperature of about sixty degrees, also regular supplies of water and air, on all favourable opportunities. When the plants have grown six or eight inches, they may be repotted, either into thirty-twos or forty-fours, according to strength, using a compost of two parts of rich pasture loam, and one part good rotten dung, and one

part leaf mould and sand, to render it porous. Great care should be taken as to the drainage of the pot. Every encouragement should be given to cause the plants to grow fast, by the liberal use of liquid manure, and the application of the syringe overhead. As the plants grow they should be well attended to, giving a shift each time the pot is filled with roots. As soon as they have grown four or five feet they should be stopped, so as to throw the whole of the nourishment into the plants, instead of allowing them to grow to waste. As many of the eyes will break after this stopping, each shoot must be stopped one leaf above the fruit eye, so that at the next break the last made shoot would break again, for if the whole of the midsummer shoots were removed, it might cause the fruit buds to break, which would greatly injure the plants. As they finish their growth, they should be exposed to the air and sun, to well ripen the wood. By the time they have completed their first year's growth, many of the plants, if they have been well managed, will be fit to grow as pot Grapes the next year, if desired; if not, they will be sufficiently strong to plant out in the borders of a vinery. But as they will now be taking their winter's rest, they may be placed in a shed or other outhouse, or the pots laid on their sides, and covered with ashes, to protect the plants from injury at the root, by too much moisture. With regard to the best structure for growing Grapes, there is now such a variety in existence, that it is difficult to decide. I prefer a lean-to; but whatever kind is chosen, it must be made to answer the best practicable ends, by giving the greatest amount of light, air, and warmth. Air must be given at all times when necessary. Ventilation should be provided for at all sides of the house, as well as by the top sashes, that air may be given at any time, without the admission of cold draughts. On opening the top lights, the heated air naturally ascends, while the cold air rushes in at the side lights, and the house becomes charged with fresh air in a very short time. In favourable weather, a constant circulation of air may be kept up with much

benefit to the plant. The best mode of heating, for many purposes, is undoubtedly with hot dung, as it not only affords the requisite warmth, but also gives out much ammonia, which is very beneficial to the plants; but it will not answer for Grape-growing, on account of the expense and difficulty of applying it. We may therefore say that the best means of heating is by hot water, which may not only be depended on for keeping up a regular heat better than any other method, but it also affords a nice moist growing atmosphere. Steam has been used in some places, but it is very expensive, and does not keep up so regular a temperature, for when the water ceases boiling, the heat subsides. The common brick flue is still used in many places with very good results. The principal objection to it is that it gives out a dry parching heat, and requires the constant application of water to preserve a good growing atmosphere; yet there are some very good Grapes grown with the use of flues only. The heat from the flues may be softened very much, to use gardeners' terms, by placing on them pans or troughs, filled with water, the evaporation from which is very beneficial to the plants. Protecting the roots, as well as the other parts of the Vines, is requisite, whenever practicable. This should be done by planting inside the house, the front wall of which should rest on a sill or arches, to allow the roots to pass under, and receive nourishment from without as well as within; but in some instances it is impossible to plant inside, as the space is wanted for other purposes. In this case, the Vines should be planted outside, and means adopted for putting them in or taking them out without injury. It is very desirable to have in the middle of all houses built for Vines a pit, for the production of bottom heat, for any other purpose, at the time the Vines are growing. Although there may be some little objection to growing any thing with the Vines, still, from motives of economy, many useful plants, which will grow in the same temperature, might be introduced. French Beans, early Strawberries, many stove plants, at certain seasons, early forced

flowers, in many cases pot Vines, or Figs in pots, could be introduced without disadvantage, while in all cases bottom heat may be turned to some useful purpose, without injury to the Vines.

WILLIAM SHIPLEY.

Heywood Gardens, Westbury, Wilts.

LEEDS CENTRAL FLORAL SOCIETY.

At Mr. J. Long's, Red Lion Inn, April 27, 1857.

AURICULAS.

Premier Blooms.—1. Oliver's Lovely Ann, J. Long, jun. 2. Lady Ann Wilbraham, J. Long, jun.

Green-edged.

- 1 Lovely Ann, J. Long, jun.
- 2 Standard of England, ditto
- 3 Lady Ann Wilbraham, J. Hartley
- 4 Waterloo, J. Fryer

Grey-edged.

- 1 Sykes's Complete, J. Long, jun.
- 2 Mary Ann, J. Fryer
- 3 Ringleader, ditto
- 4 Warria's Union, J. Long, jun.

White-edged.

- 1 Catherine, J. Long, jun
- 2 Venus, ditto

- 3 Lord of Hallamshire, J. Hartley
- 4 Taylor's Glory, J. Long, jun.

Selfs.

- 1 Othello, J. Hartley
- 2 Squire Mundy, J. Long, jun.
- 3 Lord Lee, J. Long, jun.
- 4 Brookes's Queen Ann, J. Fryer

Alpines.

- 1 Polly Hartley (seedling), S. Hartley
- 2 Mountain Maid (ditto), ditto
- 3 Tam o' Shanter (ditto), ditto
- 4 William Tell (ditto), ditto
- 5 Doctor Syntax (ditto), ditto
- 6 Britannia (ditto), ditto

POLYANTHUSES.

Dark Ground.

- 1 Lord Raneliffe, J. Long, jun.
- 2 Alexander, J. Fryer
- 3 Beauty of England, ditto
- 4 Black Prince, ditto

Red Ground.

- 1 Bullock's Lancer, J. Fryer
- 2 Buck's George IV., ditto
- 3 Croshaw's Invincible, ditto
- 4 Cox's Prince Regent, ditto

Opinions on Flowers, &c.

W.O., *North Shields*.—SEEDLING AURICULAS.—No. 1. Of no account, does not possess one good property.—No. 2. Grey edge, promising, tube rather green, beautiful fine round eye, body or ground colour blotchy and uneven, petals and edge first-rate.—No. 3. This pip, as received, had the eye thin and rather small, in every other respect, a fine flower. Tube and thrum good, body or ground colour fine, edge passable. After the style of Countess of Wilton.—No. 5. Of no account, its only good property is having a fine golden yellow tube, eye and ground colour starry, and pointed serrated edge.—No. 7. Undoubtedly a first-class green-edged flower. Tube a fine golden yellow, eye round, but rather small, in comparison

with its bold, solid, broad, black ground; edge a fine dark Holly green, A little more of it would place it at the head of this class, but, in its present state, it is a decided beat upon Lady Ann Wilbraham, or Booth's Freedom.—J. HEPWORTH.

Queries and Answers.

COLOUR OF FLOWER BEDS.—The greatest contrasts are most certainly the primitive red, blue, and yellow, and the greatest contrast to these, for a fourth, is white. Well then, Scarlet Geranium is the most intense scarlet, Lobelia speciosa the most effective blue, and Calceolarias are the best yellow. But there are other scarlets, Verbenas, for instance; other blues, light and dark,—*Convolvulus minor*, *Lupinus nanus*, for dark, *Nemophila* and *Ageratum* for light. Then there are other yellows, *Eschscholtzia*, and *Cheiranthus Marshallii*. For white there is a choice, White Petunia, White Verbena, and *Phlox alba omniflora*. There are various modifications of all these colours, but nothing is more striking than those we have mentioned. "A Subscriber" appears to be well provided with the requisite plants to do the thing properly.

GREENHOUSE SHADING.—We do not like whitewashing the inside of the glass, and no shading is so effective as proper cloths, to roll up and down, on the roof. You can give all the light then in dull weather, whereas, when the glass is white-washed, it must always remain so for the season. If it is to be done, it must be with whitening and water, for if there be size in it, to set it, it is very difficult to get off again.

COMPOST FOR GREENHOUSE PLANTS IN GENERAL.—J. B. will find that loam from rotted turf, dung from an old hotbed, and turfy peat will grow almost every thing well. There should be two parts of the loam and one of each of the others. If it be too adhesive, a little clean sand will help it, and nothing can be better as a general compost for Fuchsias, Geraniums, and other greenhouse plants. Of course there are exceptions. Heaths, for instance, would do better with two parts peat, instead of one, but they would grow in the general compost.

NURSERYMEN.—J. B.—By all means deal with those who advertise in the work, for they would naturally use the readers well. As to carriage, select the nearest people in the line.

SLUGS.—Having been in the same predicament as your correspondent, occupying, as I did, a garden in which scarcely a foot had trodden for two years, and in which every green leaf was devoured by slugs, I purchased in the neighbourhood a rod of Cabbages, and laid Cabbage leaves over all the space pretty nearly, and not more than two yards apart. Every

morning, I took up these leaves, and the undersides were covered with slugs. With a common dusting brush, I swept them off into salt and water. They did not seem to diminish the first week, but I continued the remedy, and the second week they were greatly reduced, and although I placed fresh Cabbage leaves as fast as the others dried up, by the end of three weeks, I took up many of the leaves without finding one. Then, before sowing or planting, I gave the ground a good soaking with lime water, and a slug was scarcely ever seen. I feel convinced that no remedy is so efficacious as laying Cabbage leaves on the ground, and thus trapping them, and lime water certainly kills all that it touches.

Notes for the Month.

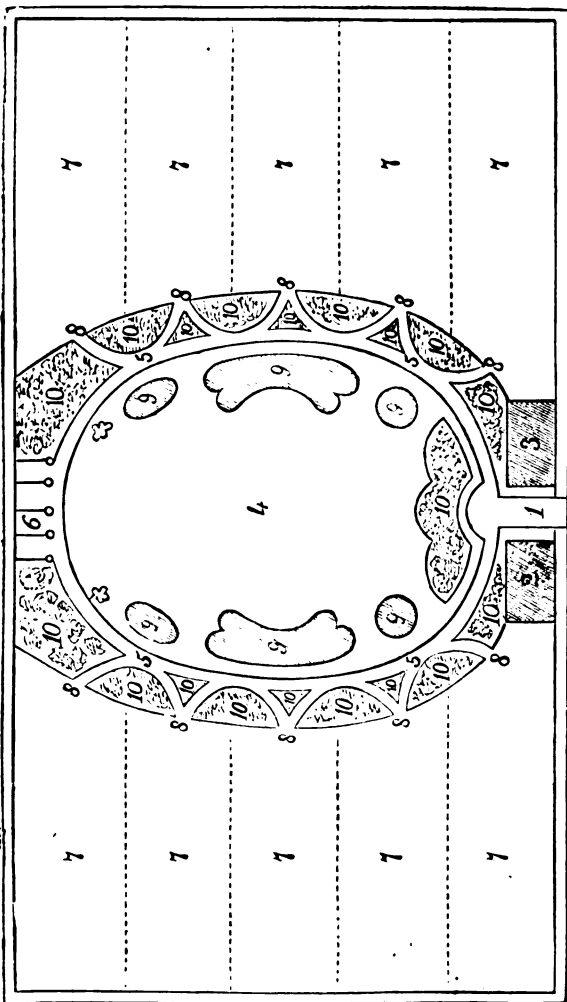
AURICULAS.—Give attention to shading from the burning sun, not allowing them to want moisture. Keep free from weeds, greenfly, slugs, or anything that is injurious.—THOMAS GIBBONS, *Bramcote*.

CINERARIAS.—The advice given last month cannot be very materially altered. The plants will be out of flower, and every care must be taken to preserve the young shoots from the ravages of slugs and greenfly. Young plants may be potted off, and cuttings put in as required, and placed in a frame or hotbed, which must receive careful attention. Shading the plants, giving air, and careful waterings, will be all that is necessary. Seed may be sown in pots or pans.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

CUCUMBERS require constant attendance, both as to the heat and the number of fruit; not more than two or three ought to be grown on each plant at one time, and not even so many, if grown for exhibition. Level the earth in the later made hotbeds, by adding enough soil, and lay the branches out of each other's way. Pinch off the ends of vigorous shoots, to force out lateral branches.—G. GLENNY, *Dunganon House, Fulham*.

ERICAS.—All plants which require repotting should receive attention as they go out of flower. Regularly supply them with water, not too freely, yet sufficient to keep them moist. As soon as they have completed their growth, place them in a shaded situation, with plenty of light and air, always keeping them free from weeds. Do not crowd them close together. Nothing will cause them to lose their foliage quicker than close confinement, if only caused by being smothered with weeds. — F. FRETtingham, *Beeston*.

FLOWER GARDEN.—Annuals should be thinned where too thick, keeping the patches within bounds. *Antirrhinums*,



A DESIGN FOR AMATEURS' GARDENS.

large specimens in beds, or single specimens, will require some attention to tying out, for they are of a brittle nature, and, when in vigour, a little wind or rain will easily snap out the side branches. Calceolarias, in beds, which appear weak, may have the centre of each shoot taken out. This will cause them to throw out fresh laterals, and increase in strength. Chrysanthemums must be repotted. Plant out in the border, where required for blooming. Persons desirous of having beds of Fuchsias to stand through the winter, if not planted, must be attended to, without delay, so that the plants may get well established during the summer. There will be no fear of the frost during the winter destroying them. All Hollyhocks that have survived through the winter, in the borders, will require striking at once, if not already done. Give a good supply of water in dry weather. To maintain vigorous growth, reduce the stems to two or three—those of more weakly growth to one.—RICHARD EDWARDS, *Nuthall*.

FRUIT GARDEN.—Apricots and Peaches should be gone over, and cleared from ill-grown shoots. Every shoot taken off should be cut at the place from which it originally proceeds. Shorten lengthy shoots exceeding their limit of space, or where laterals are required. If you are troubled with a full crop, although the generality are very poor, thinning should at once be attended to. Apples, Pears, Plums, and Cherries must also be carefully attended to, retaining a moderate supply of the most regular shoots. Nail or fasten all espaliers, and wall trees. Newly planted trees will have made some strong shoots, therefore will require to be properly secured.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall*.

FUCHSIAS.—The plants will now be getting very gay, and will well repay those who have given a little extra attention to their cultivation. They must be very liberally supplied with water, and on no account be allowed to get dry. Plants intended to flower in September should receive their final shift, and be stopped back about the first week in the month.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

GREENHOUSE.—Remove all plants that have done blooming to the open air, excepting the more tender succulent kinds, which may remain to the middle of the month. Clear them from any dead or decayed leaves, shoots, pruning away any disorderly growth. All plants which require repotting may still be seen to. Others may have a little soil removed from the surface of the pots, and replaced with fresh. Syringe well over head. This will refresh the plants, and give them a more lively appearance. Remove them into some shady situation, and where defended from strong winds, always bearing in mind that these plants must be regularly supplied with water, in dry weather, once a day will be required by many of the plants, which are confined in small pots. Keep clear from the green-

fly, which is so destructive. *Calceolarias* will be in their best, and will require good supplies of water, shading, and plenty of air. Keep all plants clear of each other. Attend to training and tying out the branches of all quick growing varieties. Continue to propagate hardy and soft wooded plants, where required, placing the cuttings round the edges of the pots, in sandy soil, plunging the pots into a little bottom heat, when the cuttings will soon take root.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempskill Hall.*

HYACINTHS AND TULIPS, as the foliage turns yellow must be all taken up carefully, and laid in their boxes, but must be dried in the shade before they are put away altogether.—G. GLENNY, *Dunganon House, Fulham.*

KITCHEN AND COTTAGE GARDENS. — Celery, if grown to a proper size, may be planted out, making each trench one foot deep, and one foot wide. Place on the bottom cabbage leaves and stalks, or any vegetable refuse, chopping to pieces, with a spade, over this place, a little well-rotted manure, and about three inches of soil. Plant the celery six inches apart. Water freely, and continue to water till the roots have started. Continue planting Cauliflowers, Lettuce, &c., for successional crops. Sow Peas, Beans, Mustard and Cress, Turnips, Radishes, &c. All crops must be kept clear from weeds. Support Peas and Beans as required. Earth up Potatoes in proper time.—JOHN BEARDMORE, *gardener to the Honourable and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—The hot and dry weather during last month has been very unfavourable to the Pansy grower, as artificial watering is only beneficial to a certain extent. The few wet and dull days at the end of the month have caused the flowers to be larger, and more pure in colour, and, therefore, better. The side shoots should be taken off, and put in to strike. They will throw some fine flowers in the autumn. Carefully watch for slugs, earwigs, and the wireworm. Those that have been planted in a north border will continue to flower well during the summer, if liberally supplied with water. Those in pots will be going out of character, and should be put on one side to seed. It must not be understood that it is advisable to save seed from the flowers that are not in their true character. The reverse is recommended. Such as do not appear fair flowers should be picked off.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—If a few cuttings can be taken off any of the plants, they may be put into thumb pots to strike. If they are kept growing, and are occasionally stopped, they will make nice plants for next season. The Geranium house may be left open night and day, except in wet weather. High coloured flowers will be in perfection. Look well to watering. This is

the month that Geraniums are in perfection, and those who think of adding varieties to their collections, should visit the exhibitions in nurseries. This saves a great deal of trouble. The flowers can then be judged by their own merits, and the purchaser's taste. Attend to the shading.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PICOTEES AND CARNATIONS which are throwing up their bloom stems must have them regularly tied up to their stakes, and as soon as the buds are large enough, not more than two or three should be left on each stem, nor must any plant have more than one stem left on it. Sow seed.—G. GLENNY, *Dunganon House, Fulham.*

PINKS.—Your plants are now throwing up their blooming shoots, and, as many will produce more than the plant is calculated to sustain, the superfluous ones must be removed, and the earlier this is done the better. The leaders left must be carefully disbudded, due regard being paid to the variety. Some will bear many more blooms than others. Thus, McLean's Criterion must not have more than one, or, at the most, two buds left on a plant, while Ward's Great Britain will require five or six. Make up your piping bed, and prepare your compost as early as convenient, so as to be in readiness for propagating without delay. When the time arrives, carefully examine your seedlings, discarding all which do not show an evident improvement on existing varieties.—GEORGE WELLS, *florist, &c., Woolwich.*

ROSES.—Bud as soon as the stocks have grown enough to offer an opportunity. Their bark should readily peel off. Take a bud from a rose you wish to propagate; cut it off, with its leaf and half an inch of the bark, very thinly; and cut a slit an inch long down the branch which is to receive the bud, and cut it across in the middle, thus forming a cross. With the handle of the budding-knife, or a sharp piece of wood, raise up the bark on both sides, tuck in the bark of the bud under each side of the bark raised in the stock, fit the leaf and its bud exactly at the cross point, tie the bark of the stock down with worsted yarn, or bast matting, cover it over with loose damp moss for a few days, and the union will be complete. Let the slit be made on the upper side of the branch, and as close down to the base as possible. It is so much stronger, that no weight of the head can break out the bud. Then cut away all the useless portions of the stock. China Rose cuttings may also be struck under a hand-glass, in the common border.—G. GLENNY, *Dunganon House, Fulham.*

STRAWBERRIES.—Towards the end of the month the beds should be thoroughly weeded, and slugs, snails, &c. destroyed, at the same time, cutting off all runners not wanted. Runners, required for stock, will soon make good strong plants, by the

following treatment:—Take out a little soil near the selected runner, place the plant on the hole, and replace the soil with a trowel. If the plants are pegged down, they will strike root with greater certainty. The terminal runner should be nipped off. At this time, liquid manure may be applied to the bearing plants, with great advantage. An excellent stimulant may be made from the soakings of the farmyard manure heap, diluted with about six times its quantity of water. If this, or something similar cannot be readily procured, guano will make a pretty good substitute. It must be used very weak; if strong, it is too stimulating, and will make the plants run too much to leaf. Give a good watering, with either of these liquids, twice a week, whilst the fruit is setting, keeping off the foliage as much as possible. These waterings should be applied in the evening. If extra large and fine fruit is required for exhibition, the plants should be examined, selecting the strongest and most healthy, and when the berries are set, remove all the small and ill-shaped ones, leaving four or five on each truss. The final thinning may be made a week after, when only two or three of the finest berries on each truss should remain to ripen. Support each truss with a small forked stick, and throw a handful of chaff about the plant. Apply liquid manure freely while the fruit is swelling, but as soon as the berries begin to colour, the watering must be discontinued.—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*

TULIPS.—Every care should be taken to keep off damp and all rains from the Tulip beds, from before the flowers come into bloom till after the bulbs are taken up. Disease, canker, or rot in the Tulip, *I do not believe in*, although no one can be suffering worse than myself this season. Nobody's loss can be greater than my own, in respect to losing a great quantity of choice flowers; and I may say, that unavoidable neglect, and for want of proper care and attention, is the sole cause of my loss; and my firm opinion still is, that neglect and inattention is the cause of the sad disaster this season in the Tulip. Some men say, or tell us, that Tulips are hardy, and that wet, frost, &c., wont kill them. To such parties I say they may be very clever in book learning, wonderful in physic, and the like, but they are very very ignorant as to knowing the true nature of the Tulip. Wet, in the first onset, is undoubtedly injurious to the Tulip bulbs, frost is still worse, but both together, is destruction, aye, and too much of it, like as we have had it this season, is certain death to the choicest and finest varieties, and the very hardiest of the old and coarse varieties do not escape seasons like this without serious injury. Therefore, I advise all Tulip growers, who are not too prejudiced, to try, for one season, what care and due attention will do.—JOHN HEPPWORTH, *Hendries Gardens, Lea Bridge Road, Leyton, Essex, N.E., London.*



Plants of Remarkable Foliage.

THE exhibition of *Cissus discolor*, a few years since, set everybody crazy about plants with variegated and remarkable foliage, for the plant was considered a great curiosity, and the colours were striking. If we remember rightly, it came out at a high price, but still, most people who had stoves, considered it a necessary addition to their collections. Since then, the prizes at the Crystal Palace, the Horticultural Society, and the Regent's Park, for the best collections of plants with variegated or remarkable foliage, have given an impetus to collectors, and the extent and variety of such plants, in the present day, are almost incredible. They now form one of the most attractive features at an exhibition. We remember a collection of variegated plants was shown at the Surrey Gardens for the last few years, but they were mostly hardy or half hardy; nevertheless, there was some addition every year, and they were very interesting. But now we have stove and greenhouse varieties, as well as hardy, and ten times more than we had a few years back. We need hardly say that each of these families require the ordinary treatment of their respective departments, but to those who are fond of such things they are worth all the trouble. The most beautiful are stove plants, and the variegations are not mere white streaks or blotches upon green, but mixtures of scarlet, yellow, and deep brown, mingled in all sorts of ways with green and white. We are all familiar with the variegated *Geraniums*, and the different style of foliage in these is

remarkable. The Mountain of Light, Brilliant, Fairy, Flower of the Day, and Lady Plymouth, are all variegated and all very different. Then we have two variegated Alyssums, several Irises, Rhododendron, Dahlia, Fuchsia, Veronica, and many others, which may be called common things, that would scarcely be looked at now that we have such a host of greater beauties. To give some idea of the number and variety of plants now valued for their foliage, we will mention a few greenhouse subjects, and add some of the most remarkable of the stove plants.

GREENHOUSE PLANTS.

	<i>s. d.</i>		<i>s. d.</i>
Agnostus integrifolius		Rhopala corcovadensis...	31 6
" was sold at	10 6	Stadmannia australis ...	42 0
" sinuatus	21 0	StenocarpusCunninghami	21 0
Aralia crassifolia	21 0	Yucca aloefolia variegata	
" Japonica	105 0	" filamentosa variegata	
" quinquefolia	42 0	" filifera	
" trifoliata	21 0	" quadricolor	
Dracana Australis	21 0	" stenophylla	
" indivisa	63 0	" undulata	
Quadrya heterophylla ...	5 0	" variegata	

Of course these are to be had much cheaper now, and many growers like them because they are alike interesting the year round. It was the novelty that commanded the price, and persons who exhibit rarely pay much attention to expense, their enthusiasm overcomes their love of money; and if they must have things before the nurseryman can propagate them to any extent, they must pay the novelty value. Of the Yuccas nothing can be said, because the most common of all varies from eighteen pence to thirty or forty shillings, all dependant on the size of the plant. In the stove we find a much greater diversity, and perhaps, as a large portion of the community are now collecting, it may be well to mention the genera at least of a few.

	<i>s. d.</i>		<i>s. d.</i>
Adhatoda cœnea	3 6	Aphelandra portena	5 6
Anæctochilus argenteus	7 6	Three others.	
Nine other species and		Aralia papyracea	42 0
varieties, from 7s. to		Aspidistra lurida varie-	
4s.		gata	3 6

	s. d.		s. d.
<i>Bertolonia maculata</i>	3 6	<i>Gloxinia</i> (a garden variety)	
<i>Billbergia gigantea</i> (new)	63 0	<i>Maranta albo lineata</i>	5 0
Five others, mostly new.		And ten others.	
<i>Caladium atropurpureum</i>	7 6	<i>Orespanax Bonplandianum</i>	63 0
Nine others.		And two others.	
<i>Cephalotus follicularis</i>	63 0	<i>Ouviranda fenestralis</i> ...	105 0
<i>Cissus discolor</i>	3 6	<i>Panax excelsa</i>	10 6
<i>Coleus Blumei</i>	2 6	<i>Pandanus graminifolius</i>	5 0
And another.		And five others.	
<i>Croton augustifolium</i> ...	5 0	<i>Pavetta borbonica</i>	63 0
And four others.		<i>Philodendron erubescens</i>	42 0
<i>Didymopanax splendidum</i>	21 0	And three others.	
<i>Dieffenbachia picta</i>	5 0	<i>Rhopala corcovadensis</i> ...	63 0
<i>Dionæa muscipula</i>	7 6	And eight others.	
<i>Dracæna arborea</i>	21 0	<i>Theophrasta imperialis</i>	63 0
And nineteen others.		And three others.	
<i>Fagræa auriculata</i>	42 0	<i>Tillandsia zebrina</i>	7 6
<i>Ficus Leopoldi</i> (new) ...	63 0	And another.	
And another.		<i>Urania speciosa</i>	105 0
<i>Gesneria zebrina</i>	2 6		

The above will give your readers some notion of the extent to which the cultivation of plants for the sake of the foliage alone is now carried. The prices have already rapidly declined, and *Cissus discolor*, almost the first that made any noise, and the most beautiful perhaps of all, is down to three shillings and sixpence. We believe a very small plant was once two guineas. In all these three classes, the hardy, the greenhouse, and the stove varieties, the management is general; whatever will agree with an ordinary greenhouse collection, is sufficient for all we have mentioned as belonging to that department. The most ordinary soil, such as will do for *Geraniums*, is all that is wanting; a few crocks in the bottom of the pot, and there is not one of the plants we have mentioned, except the stove plants, that will fail. Perhaps Veitch's nursery contains the largest collection of these plants, Henderson's tread close upon the heels of Veitch's, if we judge from the displays at the great exhibitions, and Glendenning's contains some novel curiosities in that way, but the cheaper sorts are finding their way into most of the respectable nurseries. We are not over partial to the tribe of variegated plants, unless it be such as bear

flowers of some conspicuous kind, but there is no denying the fact that they are becoming popular, and, as it is a pure matter of taste that growers have to indulge, we recommend every one who desires to cultivate a few, to visit the nurseries and choose for themselves. We have given a partial list of the stove varieties, because it was the conspicuous beauty of some of those that first set the fashion. They exhibit almost as many colours as there are among flowers, and as to the culture, it is as simple as that of greenhouse varieties, the only difference being the temperature of the house; and of course, those who have greenhouses only, will confine themselves to the kinds that will flourish in that temperature, while those that have a stove, or a small house, in which they can raise the heat to sixty degrees by night and seventy by day, may indulge in such of the other as may be within their reach; and it will be found that many which are mentioned with high prices, may be procured at much less now, and will be still lower every succeeding year.

GEORGE GLENNY.

Chiswick Exhibition.

"THERE is nothing like out-door exhibitions." This is a text we have heard preached from many times, by a Nottingham florist, and we must confess that we are converts to the doctrine, where exhibitions can be held in ornamental pleasure grounds. The fresh air obtained in a rude canvass tent is preferable to the stifling heat of the rooms in which exhibitions are frequently held, though it cannot be denied that in some respects a large room, well lighted, has peculiar advantages. There is, however, one excellence which an out-door exhibition possesses, that must be considered a silencer to all objectors. It gives room for promenading; and now ladies do us the honour of attending our exhibitions, they are, by the increased space which well arranged

grounds afford them, enabled to manifest to greater advantage that gracefulness, beauty, and variety which their presence so fully developes on all occasions, but especially at flower shows, where all the surrounding objects are beautiful.

“Flowers to the Fair! to you these flowers I bring,
And strive to greet you with an earlier spring;
Flowers sweet and gay, and delicate like you,
Emblems of innocence and beauty too.
With flowers the Graces bind their yellow hair,
And flowery wreaths consenting lovers wear.
Flowers, the sole luxury which Nature knew,
In Eden’s pure and guiltless garden grew.”

Chiswick is certainly a most delightful place, just near enough the metropolis to be easy of access, while it is far enough off to escape the din and smoke. The gardens, under the able management of Mr. George M’Ewen, the new superintendent, were the acme of neatness, everything was in excellent order, and indeed the management of the exhibition was creditable to every one. We cannot but congratulate the Horticultural Society on having secured the able services of Mr. M’Ewen, and wish him health and strength to carry out the arduous but pleasing undertaking of restoring Chiswick. The attendance of rank and fashion was numerous; more than one noble lady honoured the exhibition with their presence. The weather, though rather showery in the early part of the day, was afterwards more favourable, Nature adding to the beauty of the scene, the rain drops pending from the branches, like beads of pearl, reflecting glorious sunshine, and the whole prospect growing visibly richer every hour. The Hawthorns, Wisterias, Gueldres Roses, Lilacs, Laburnums, and Horse Chestnuts, were in their full beauty, and lent attractions not to be despised. The cuckoos too, were peculiarly busy, with their mysterious voice,—

“The same which in our schoolboy days
We listened to; that cry
Which made us look a thousand ways,
In bush, and sea, and sky.”

The exhibition was held in a splendid building, filled with ornamental plants, and used, we should suppose,

as a conservatory. Pelargoniums, Roses, Azaleas, vegetables, all displayed their various beauties in extensive tents. The Pelargoniums were not exhibited on stages, but in circles, cut deeply out of the turf, under the tents. This had a very pretty effect; but had the vacant parts of the circles, between and around the pots, been filled with greenish moss, we think it would have been a great improvement, and taken away a shade of nakedness that was visible. This plan of exhibiting Roses and Pelargoniums, would be applicable to many out-door exhibitions, and might be adopted with great success and but little trouble. We must not, however, spend any more time on the general effects, but proceed to notice the awards for Pelargoniums.

1. Mr. C. Turner, with *Astrea*, *Lucy*, *Sanspareil*, *Admirable*, *Una*, *Lord Raglan*, *Governor General*, *Frances*, *Esther*, *Basilisk*, *Wonderful*, *Attraction*, and *Rosamond*. 2. Messrs. Dobson, *Admirable*, *Commander-in-Chief*, *Mr. White*, *Painter Improved*, *Lucy*, *Star*, *Ambassador*, *Fandango*, *Wonderful*, *Gem of the West*, *Don Carlos*, and *Rowena*. 3. Messrs. Fraser, *Governor General*, *Gem*, *Lablache*, *Portia*, *Rowena*, *Majestic*, *Rosamond*, *Magnificent*, *Exactum*, *Ganymede*, *Sanspareil*, and *Mochana*.

The fancies, which, after all is said and done, make the finest exhibition, were truly magnificent.

1. Mr. Turner, with *Criterion*, *Delicatum*, *Attraction*, *Fornarina*, *Madame Sontag*, *R. Cobden*, *Cassandra*, *Celestial*, and *Ne plus ultra*. 2. Messrs. Fraser, *Celestial*, *Imperialis*, *Fairy Queen*, *Hero of Surrey*, *Cassandra*, *Jenny Lind*, *R. Cobden*, and *Madame Sontag*. 3. Messrs. Dobson, *Lady Alice Peel*, *Fleur de Marie*, *Perfection*, *Evening Star*, *Celestine*, *Triumphant*, *Cassandra*, and *Erubescens*.

The amateurs, too, came up remarkably well. Seloom have we seen Pelargoniums in such good condition as on this occasion.

1. Mr. Wiggins, gardener to E. Beck, Esq., with *Sunset*, *Gem of the West*, *Emperor*, *Laura*, *Sanspareil*, *Evelyn*, *Wonderful*, and *Fanny*. 2. Mr. Foster, *Wonderful*, *Seraskier*, *Purple Perfection*, *Prince of Wales*, *Sanspareil*, *Meteora*, *Symmetry*, and *Carlos*.

Then among the amateurs' fancies there were some very nice showy plants, some of them being two feet six inches in diameter. Mr. Boussie had *Charles*

Dickens, Cassandra, Delicatum, Madame Sontag, Purpureum alba, Bridesmaid, and Criterion. Mr. Windsor had Lady Alice Peel, Electra, Madame Miellez, Delicatum, Madame Sontag, and Celestial. Mr. Wier had Erubescens, Evening Star, Delicatum, Lady Hume Campbell, and Fairy Queen.

Perhaps the most showy Pelargoniums exhibited were Wonderful (Hoyle), Governor General (Hoyle), and Lord Raglan.

Petunias Delicata, Rosy Queen, and Attraction were prominent; and Mr. Turner's shrubby Calceolarias attracted much attention. Eclipse is a pretty variety, Tamberlik is uncommon, and Germ and Hebe are both good. Mr. May and Mr. Salter showed some good Pansies, and Mr. Kinghorn some nice Scarlet Geraniums. Both Queen and Lizzy were good.

The Azaleas were very fine, particularly Conspicua, a very large purple flower; Optima, large scarlet, good shape; Perryana, orange scarlet, good shape; Elise Miellez, a very fine variety; and Glory of Sunninghill, double pink. Messrs. Lane's collection, among which were many of the above, also deserved especial notice. Although the specimens in Messrs. Ivery's collection were not so large as others, still the individual blooms would bear the closest inspection. Rubra pleine, a double variety, was very fine.

The Rhododendrons were truly magnificent, but we have not space to enumerate. The greatest novelties were, Schiller, blush purple, with dark spot; Comtesse de Morello, pink, shaded with white; Mrs. Standish, white and yellow; Piccolimini, rose, with brown; Dalhousie, a large white waxy-tubed flower, three to four inches long, of fine form and great substance, a splendid greenhouse plant; Charlotte Bronte, crimson.

Then came Roses, but really all were so charming, that to pick out one variety before another would be impossible, we therefore give the award.

1. Messrs. Lane, with Blairii No. 2, Magna Rosea, Chenedole, Comtesse Mole, Coupe d'Hebe, Paul Perras, Paul Ricaut, Cornet, Duchess of Sutherland, Miellez, Adam, Madame Wil-

lermorz, and Nephotos. 2. Messrs. Paul, Mansois, Jules Margottin, Auguste Mie, Geant des Batailles, Elize Mercœur, Louis Odier, Madame Willermorz, Charles Duval, Paul Perras, Paul Ricaut, Nephotos, and Coupe d'Hebe.

The amateurs also were not behind; some splendid specimens were exhibited by A. Rowland, Esq., Mr. Terry, and Mr. Mortimer.

The Orchids, were fine, but our limits will not allow us to particularize. Stove and Greenhouse plants were also extremely fine.

The plants with fine foliage were magnificent. *Levistonias borbonica*; *Dieffenbachia picta*, green, spotted with white; *Calladium bicolor major*, red and gold; *Croton variegatum*; *Cissus discolor*; *Bromelia spectrum*, spike-like; *Dracæna ferrea picta*, ornamental dark crimson leaves; *Scyndapsus pertussus*; *Croton pictum*, dark green foliage, with crimson and yellow blotches.

The Ferns were also very good. *Erica Cavendishii*; *Ixora javanica*, dark orange; *Ixora crocata*, buff orange, dark and free; *Erica candolana*; *Goliath*, a seedling *Verbena*; *Erica depressa*; *Erica magnifica perspicua nana*; *Aphelexis humili rosea*; and *Pimelia spectabilis* were all worthy of notice.

Nottingham Horticultural Society.

THE first exhibition for the season was held July 3rd. The Exchange-rooms, which have so often looked gay and attractive, under the auspices of this ancient society, never presented a more brilliant aspect, than on the occasion of which we speak. From the entrance at the exterior of the building, and onwards, through the vestibule, ante-room, and spacious hall (the two latter rooms being thrown into one), the visiter walked amidst a perfect blaze of floral beauty. The collection occupied more space than has hitherto been devoted to the society's exhibitions. The arrangement of specimens was skilfully conducted, due regard being paid to

aggregate effect. The most striking feature of the show was the number and variety of single specimens of stove and greenhouse plants, most of which were in the full pride of their summer glory. The *Pimelias* attracted general attention; and well they might, their masses of pink feathery heads, being lovely in the extreme. The *Azaleas*, which, with allies, have crossed the Atlantic, to take their rank amongst our most admired favourites of the garden and greenhouse, were represented in numerous varieties. *Vinca*, rose-coloured and white, was also here in delightful profusion. A magnificent *Hoya carnosa*, several feet high, carefully trained into a spacious circle, and whose petals glistened like brilliants on their dark glossy leaves, loaded the surrounding air with fragrance. A large *Rhynchospermum jasminoides* was not a whit less odoriferous. There was a *Clerodendron*, with gigantic leaves, resembling those of the rhubarb, and crowned at its lofty summit with finest umbels of coral-like flowers; and the *Ixora coccinea*, presenting such a striking contrast between its massy red corollas, and olive-green leaves. Several excellent specimens of Orchids were shown, including *Oncidium papilio*, *hartwegii*, and *flexuosa*. *Pelargoniums* and *Fuchsias* were a tolerably good show. A specimen, which attracted as large a share of attention as any in the room, was the *Nepenthes distillatoria*, or pitcher plant, a highly curious production of the East Indies. The *Distillatoria* is the best known species at present in the possession of cultivators. It forms a slender woody stem, growing several feet high. At the lower part of the stem are a few leaves of a bright green colour, and varying in length from one to four or five inches, and having the appearance of ordinary leaves. Higher up the stem the leaves increase in length, and at the point, taper into spiral tendrils, from which are produced long funnel-shaped green cups, covered by a lid, and sometimes containing water. The use of this water is unknown, although some have hazarded the statement that, in its native swamps, it allays the thirst of monkeys, and hence the pitchers are

called "monkey cups." The collections of particular flowers were not numerous. Tulips, owing to the late unfavourable weather, made but an indifferent show; though there were, undoubtedly, a few fine specimens. In this department the Rev. S. Creswell, of Radford, secured the principal prizes; and we noticed that the society awarded him a first-class certificate of merit for three seedlings. The award of prizes for Tulips will be found in the usual course, under the head "floral exhibitions."

Polyanthus and Auricula Bloom.

MR. EDITOR,—As you have hitherto favoured me by the insertion of such scraps as I presumed to be useful to young and unpractised florists, in the new series of your *Midland*, I would again trouble you with a request to insert the following notes of my bloom and culture this season.

I have tried to cultivate the Polyanthus in pots, but I never succeeded well, for they require unlimited attention, and I have found them more delicate in habit, and they never increase so well under this mode of treatment, therefore I have dropt it.

At one time, I separated my plants in August, and lost many by so doing. At that period, the plants are nearly or quite in a dormant state; in fact, the old foliage is decaying, and the young is not sufficiently advanced, and if removed, however suitable the weather may prove, three-fourths will assuredly go off. The situation in which I grow them, is a bed at the bottom of my garden, raised from the walks about eight inches, and enclosed with boards; it faces the south west, but is well shaded after ten o'clock in the morning, by a high and thick hawthorn hedge, which serves the purpose excellently during the hot summer months, and allows sufficient sun to reach the plants in spring.

As soon as the new foliage is advanced three or four inches (say about the 12th of September), remove your plants and separate the increase. Plant with loamy turf and two-year old cow dung. Give a watering with rain water (not over head mind), to settle the soil at the roots, and if the weather prove dry, repeat the watering. Some growers do not protect the plants during winter, but I lost three-fourths of my varieties by neglecting this, therefore I protect them in the following manner. About the beginning of November, I remove the earth four or five inches around each plant, to the depth of an inch, and then gather the foliage together into one hand, keeping it fairly erect, and place a sufficiency of fog, well dusted with soot, around; then cover over the fog entirely, and make the earth firm with the hand, with the exception of a small part near the foliage. I then cover the whole bed with fog, the thickness of about six inches, and place a six-inch square of glass over the top of each plant, to keep the wet from the heart. With such a covering, although the last winter was most severe here, Master Frost snatched from me only one very young plant. For this lesson, my most sincere thanks, are due to Mr. S. Hammond, of New Radford. During the months of May, June, July, and August, I give them more shade, if necessary, for if exposed to the scorching rays of the sun, the plants would be greatly injured. I again say, if the weather is dry and hot, give plenty of water daily; I regularly soak mine, the soil being rather light. If this is not attended to, the probability is that the red spider will attack them, in which case, syringe the under side of the foliage with strong soapsuds, without a moment's delay. This will banish, if not destroy it, and it very seldom returns the same season. In practice, I always found one dose sufficient, and my plants never suffered from the application. With this treatment, I have had a most gorgeous bloom the last two seasons.

I will now give a few choice varieties, which I grow for my own gratification, and which I procured, all

true to name, and fine strong healthy plants, from that worthy gentleman, Mr. Hammond, who I would recommend to old and young as one in whom implicit confidence may be placed. Maud's Beauty of England, ex.; Buck's George IV.; Pearson's Alexander *true*; Nicholson's King; Craiggy's Tartarus; Hufton's Lord Lincoln, ex. ex.; Ollier's Cheshire Favourite, ex. ex.; Crownshaw's Exile; Addis's Kingfisher, ex. ex.; Brown's Lamartine, ex. ex.; Lakin's George Canning, ex.; Bullock's Lancer, ex.; Hufton's Lord Ranccliffe; Brown's Richard Cobden, ex. ex. ex.; Brown's Uncle Tom, ex.; Gibbons's Royal Sovereign.

The long absence of sun heat, with much rain, during the bloom, prevented any cross-breeding of this, one of my favourite flowers. However, I will have a pinch or two of extra natural seed.

Mr. Editor, it is my duty, yea, an incumbent obligation on me, here publicly to mention, that Joseph Hunt, Esq., of High Wycombe, wrote me on the 6th of February last, enclosing a packet of his fine Sweet-william seed, which I never received, and on observing my remarks in your May number, he most generously forwarded me a present of his famed seed, which I have sown, and it has brearded splendidly, and I will do it *justice*. He also was so magnanimous as to forward me several anther packets of his choice Tulip farina, for crossing. This brotherly and Christian conduct of Mr. Hunt will not be easily eradicated from my memory.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

Scottish Pansy Society.

ALTHOUGH a pouring rain ushered in the morning of the 10th of June, it was not sufficient to damp the ardour of the pansy growers of Scotland. On no former occasion did the growers muster more strongly

than on that morning, in the Zoological Gardens, Edinburgh. From north, south, east, and west, the railway brought its freights of the men with the green boxes. And most assuredly, on no former occasion did so many stands grace the society's table. No fewer than ninety-two stands of Pansies were produced, containing flowers of a quality that could hardly be surpassed. Some of the blooms could not fail to rouse the enthusiasm of every raiser and cultivator of this charming flower. But, as ill luck would have it, the weather continued so unpropitious, that the good folks of Edinburgh would have been bold indeed to have ventured to a flower show. Consequently the initiated had the matter fairly in their own hands, and had plenty of both time and room to criticise the quality of the blooms exhibited, as well as the relative value of the winning stands. Formerly, the society held its annual competition in connection with the Caledonian, at the Experimental Gardens, Edinburgh. As there was no show that suited our meeting this season, it was arranged that the society's competition should take place at the Zoological Gardens, in connection with a floral display, got up by the new and enterprising proprietors of that popular place of amusement. The room in which the competition took place was hardly suitable for the purpose, being too dark, and otherwise not the best place for such a display. A new hall, however, is in the course of erection, and when completed, will form an admirable place for floral gatherings. No fewer than between thirteen and fourteen hundred blooms were staged, and the judges had no easy task to decide which were the best. The beautiful weather that was so general over the whole kingdom, the week before the show, had brought the head of bloom to its best. In fact, had the competition taken place the week previous, all the growers allowed they would have been better than they even were on this occasion. There was little to complain of on this score, however, as the quality was undeniable. Pot culture under glass is the most certain means, in our

fickle climate, of bringing out the many fine points of the Pansy. There is a brightness, a clearness, and smoothness attained by this method of culture, that flowers from the open ground can never be brought to by the most careful management. And to prove what I am stating, I believe three out of four of the winning stands contained flowers from pots solely. No doubt you get a thickness of petal in out-door culture, but it is in general at the expense of smoothness and general refinement. How hard it is to get a flower very large and good in other points. Size is the last point. Commend me to an average-sized bloom, not too old, colours bright and well defined, of perfect shape, edge, and smoothness—the latter quality a *sine qua non* with the judges at the Scottish Pansy Society. In yellow grounds, Cyrus is certainly a giant in competition. Although Emperor Napoleon took the prize for the best yellow ground flower in the room, still it was a close contest, as the Cyrus in Mr. Young's stand, in the amateurs' class, was, some thought, quite equal to its rival. In white grounds, Countess of Rosslyn not only took the prize for the best white ground in the room, but was undoubtedly the finest flower in the room besides—for which it was also awarded the prize. I considered that particular bloom the finest pansy I had ever seen,—once seen, but never to be forgotten,—a gem among a thousand. Sir Colin Campbell is also in this class, quite first-class, always ready, a first-rate grower, and hard to beat. Louisa, evidently a seedling from the Marchioness of Bath, is also a refined white ground flower. Beauty, Royal Standard, and Miss Talbot are all well known and good. In selfs, Indian Chief took the lead, as the best self in the room; but as I demur to shaded selfs being considered selfs at all, I will say nothing more on that judgment. Jeannie asserted her superiority in the amateurs' class, taking the prize for the best self; but notwithstanding her refinement, she has the objectionable shading round the eye. Yellow Model is fine as a yellow self, but the blotch is its redeeming point. I have never seen it

perfect in shape. Mrs. Dodwell, barring shape, is a fine yellow self; but the fact is, perfection has yet to be attained in this class, as well as in the white self class. Altogether, the show was one not soon to be forgotten, "and notwithstanding evil prognostications from afar," the Scottish Pansy Society is the most successful and prosperous floral association in Scotland.

The following is the list of prizes in the various classes:—

Nurserymen's Class (Twenty-four Blooms).—1. Downie & Laird, Edinburgh. 2. Dickson & Sons, Edinburgh. 3. T. H. Douglas, Edinburgh. 4. Robertson & Paul, Paisley.

Gardeners' Class (Eighteen Blooms).—1. Mr. Fraser, Belmont. 2. Mr. M'Farlane, Barnton. 3. Mr. Reid, Broomfield. 4. Mr. Shearer, Yester.

Gardeners' Class (Twelve Blooms).—1. Mr. M'Farlane. 2. George Hadfield, Haltwhistle, Cumberland. 3. Mr. Dunlop, Inglis Green. 4. Mr. Fraser, Belmont.

Gardeners' Class (Six Blooms).—1. Mr. William Young, South Bridge. 2. Mr. Beveridge, Inveresk. 3. Dr. Charles Stuart, Chirnside, Berwickshire.

Amateurs' Class (Six Blooms).—1. Mr. Hadfield, Haltwhistle, Cumberland. 2. Dr. Stuart, Chirnside. 3. Mr. William Young.

In Classes, open to all (Twelve Blooms).1. Thomas Reid, Broomfield. 2. John Hampton, Newport, Dundee. 3. James Gibson, Bracheath, Cathcart.

In Pots, open to all.—1. Messrs. Dickson & Son. 2. T. H. Douglas.—**Amateurs.**—Mr. Young.

Single Blooms.—**Gardeners.**—Self, Mr. Reid, Indian Chief. Yellow ground, Messrs. White & Sinclair, Paisley, Emperor Napoleon. Light ground, John Fraser, Belmont, Countess of Rosslyn. Best in the room, Mr. Fraser, Countess of Rosslyn.

Single Blooms.—**Amateurs.**—Dark self, Mr. Hadfield, Haltwhistle, Jeannie. Yellow self, Mr. Young, Mrs. Dodwell. Light ground, Mr. Saunders, Countess. Yellow ground, Mr. Young, Cyrus.

Seedlings.—Light ground, Maud Mr. Campbell; Lady Napier, White & Sinclair, Paisley. Yellow ground, Mr. Hope, Fraser.

Sweepstakes.—Messrs. Dickson & Co.

C. S.

Berwickshire.

Grand National Rose Exhibition.

WE are glad to see that so energetic and spirited gentlemen as the Rev. S. Reynolds Hole, of Cauntton Manor, has taken up this subject. The proposition that Rose growers should have a grand exhibition at some central situation is excellent, and most acceptable to all the lovers of Roses. The question is, however, whether Rugby would be the best place. It should be

some town where the good people are fond of flowers, and where the exhibition will meet with support. We think, therefore, that the WHERE should remain open for the present. A leading gentleman, in informing us of the prospect, says, "I now find, that though I should not hesitate to guarantee a hundred pounds in prizes, there is not a possibility of appointing committees, central and local, drawing up a schedule, hiring ground, tents, music, &c.; and I therefore propose to postpone our first show to the first week in July, 1858. To prove the zeal with which the project has been welcomed, I may mention that more than one nurseryman has offered a subscription of five pounds, and I have no doubt whatever as to the complete success of a Grand National Rose Show in the summer of 1858."

Derby Horticultural Society.

OWING to our having to be present at the Chiswick exhibition, on the day following, we were unable to attend the Derby show, and therefore give the following, from the pen of a correspondent.

This society, which, for the last ten years, has exercised no inconsiderable influence over the horticultural interest in Derby and its neighbourhood, and been the means of inducing several kindred institutions to be established in the villages, has now reached a new era in its existence, and entered upon a far more promising state of things than any which has marked its past history. The little differences which existed between the committee of the society and the Arboretum committee have been, principally through the exertions of a gentleman who has the success of both institutions at heart, most satisfactorily adjusted, and the exhibitions will henceforth take place in the *locale* which is so well adapted by nature and art to the purpose in hand, the Arboretum. The *fete* of the season was held on the 2nd of June, when a brilliant and fashionable com-

pany graced the exhibition with their presence. As before, the display took place in a series of spacious tents, which were filled, without being crowded (the admirable arrangements preventing such a catastrophe, for an evil it is, when specimens are packed together without taste), by the noblest collection of plants and flowers ever staged in connection with the society whose gala day we are thus briefly chronicling. The exhibition, indeed, was entitled to lavish eulogium, and reflected the highest credit on the managers of the society and the exhibitors who so freely and successfully contributed to the gratifying result. The "Chatsworth tent" was, as might be expected, the great source of attraction, and it was thronged throughout the day. Mr. Jackson, Mr. Dryden, Mr. Bayley, and others also had some superb specimens of plants. In cut flowers, there was a large and excellent display of Tulips and Pansies—flowers which attracted no small share of attention. The judges were, for plants, fruits, and vegetables, Mr. J. Edwards; Mr. W. Foy, Chatsworth; Mr. Lamb, Osmaston, near Ashbourn. Tulips, Mr. J. Spencer, Beeston, and Mr. C. Spencer, Thulstone. Pansies, Mr. J. Edwards, and Mr. W. M. Hewitt, Chesterfield. Two bands of music were upon the ground.

The Loss of Tulips.

IN your last number, you have a short article from the pen of Mr. J. Hepworth, wherein he states that he has lost the greater part of his stock of Tulips, and he attributes it solely to frost, &c. I, as an old grower, must say he is most egregiously mistaken. Every one on the Lea Bridge Gardens has suffered the same loss as Mr. Hepworth.

Now, if Mr. H. had said that frost would kill the Chinese Sensitive Plant, we should have been inclined to side with him. I suppose he has not been in the habit of losing Tulips wholesale before. The real fact

of the matter is this,—the Lea Bridge Gardens are of a most curious kind of soil, lying low, damp, and marshy; it is also of a fine texture, so that no air can possibly get into the ground; consequently every thing becomes choked up, and it is my firm opinion, that if gentlemen grow their Tulips on these grounds, without a great alteration of soil, they will lose the whole of their stock in the course of two or three years. As to frost killing the Tulip, it is quite out of the question. When do we have a better bloom than after a hard winter, when two months or more of frost have to be encountered, when the bulbs are completely frozen into the ground, and when they make their appearance are full of vigour and strength? The only thing required, until April, is covering with net, and after this, they require extra netting, to protect them from hailstones, &c. In the years 1813 and 1814, when we had sixteen weeks of frost, the Thames frozen up, and navigation completely at a stand, we had one of the best blooms in recollection, and therefore I must beg most materially to differ from our esteemed friend, Mr. Hepworth.

W. M. B.

17, *Maidstone-place, Goldsmith-row,*
Hackney-road, London.

A correspondent, signing himself "An East End Grower," has also written to us on this subject. The notes are very similar, and as we have not space for both letters, and as the above arrived first, we give it priority.—ED.

Summer Treatment of Greenhouse Plants.

Most greenhouse plants begin their new growth when they have done blooming, and according to the manner in which this new growth is encouraged or checked, so will they be better or worse for blooming the next year. Many people turn out their greenhouse plants as soon as they have lost their beauty, and then they must take

the chance of all weathers, at a period when they are most of all liable to suffer, that is, while the young growth is pushing. A cutting east wind will then crumple the foliage, and spoil the appearance for a year. As soon as a plant has done flowering, and before any growth is made, it should be pruned into form. It is the only stage at which we can properly regulate the growth, by cutting in long awkward shoots, removing any branches that are not wanted, and so managing it that the new growth will fill up the surface and form it into a handsome specimen. In a general way, we can afford to cut all the shoots a good way back, some as far back as to leave only two or three eyes. *Camellia Japonica* is a plant that wants great attention, or it will grow ugly. The shoots at the ends of the branches start before the bloom has opened; the flower is the smaller and weaker for it, the new shoot takes up the growth and merely lengthens the branch that is already long enough, and it is the same with the other branches, they all lengthen, no side and lower shoots come, the plant grows tall, without getting more bushy, and in two seasons is spoiled. When the spike next the bloom-bud begins to push, remove it; never leave the end shoot on unless you want to lengthen the branch; by picking them off the whole strength of the plant is thrown into side shoots, branches, and flowers. But this is not all that is to be done. Shorten every branch that is too long, cut out any weak wood that clogs up and confuses the centre, make the plant of a good form, by cutting back whatever is ugly, and if the pot is full of roots, shift the plant into a larger one; but as *Camellias* are now set for bloom and have done all their growth, set them in the shade. See that they do not want for water, and let them rest and harden. With regard to other hard-wooded plants that bloom next year upon the wood they make in this summer, the best treatment is to be as nearly as possible assimilated to that of the *Camellia*, that is to say, when the beauty of the bloom is over prune them into such form as you wish, before they put out any of their new growth,

because it is then that the plant furnishes itself. Many do this and set them out of doors in the shade, but there are some plants that, like the Camellia, are out of bloom before it is safe to turn them out of doors; these must make their new wood in the house, and be well grown and perfected before they are turned out. The perfection of a turn out is, however, under a canvass awning, like a Tulip frame, because, when closed up, the sharp winds take no effect on them. With a convenience of this kind most plants might be pruned and turned into the canvass house, as they decline flowering, but they will require some attention. They must have protection from the wind, when north or east, and from the sun during the heat of the day. They must have all the air they can get, and in fine genial weather, except the few hours of mid-day sun, they may be open altogether. They may also have warm showers, but they must be shut up in their canvass abode whenever the wind is high, and also when in the wrong quarter. When the plants have made their growth, they may be more exposed, still they must not have the hot sun. But after all is said and done, the pruning is by far the most important operation, because this done well, your plants will be handsome, however large they grow; neglect this, and they will be barelegged, nothing but naked wood at the bottom, and totally unfit to show singly, even on your own shelves. What is the consequence? When you arrange your greenhouse for the winter, you crowd them, to hide their naked stems, and make bad worse. They may make a pretty bank of flowers, because you see nothing but their tops. Whereas, prune them every year before they make their new wood, keep them well down, for the top eye or bud left is sure to grow the most vigorously, and for this you must make allowance when cutting back or pruning. As, therefore, you must, properly speaking, begin in the spring, prune everything as it goes out of flower. Hoveas, Acacias, Camellias, Correas, Chorozeas, Cytissus, Cestrum, Epacris, Nerium, Pimelia, and many others, are usually turned out as soon as they

have done flowering, and allowed to grow as they may; hence, after the second or third year, the plants, instead of being handsome, are very ugly. Whether they are put in a canvass house, or merely placed in a shady border, matters but little, compared with the importance of first cutting them into shape. The Camellia ought not to be turned out until it has made its new growth complete, and set its bloom, because it has generally done blooming by the end of March, and a check, just as it makes new wood, stops its setting well for flower, and it is good for nothing unless full of buds. This can always be ensured if well attended to while growing, and liberally watered. An awning, to merely keep the sun off greenhouse plants, does good, because then they could be placed in an open space, and have plenty of light and air, and be more free from vermin than they could be under natural shade, whether it be from walls or trees,—one more point with regard to the summer treatment of greenhouse plants, because the common practice is to crowd them into as little room as possible, and they get neither light nor air in sufficient quantity. They must have abundance of both to do any good; they must be often examined to see if they want water or shifting, though it is desirable to avoid that if possible, until they are taken back to the greenhouse.

TIFFANY.

The Royal National Tulip Show,

AT THE BOTANIC GARDENS, MANCHESTER.

THE season of 1857, like that of 1856, has been unfavourable to the Tulip, and the florist must hope on for another season. Frosts after the middle of April, as in the present year, always do a considerable amount of harm; because the sun's rays having rendered the colouring matter fluid, and severe frost stagnating it, causes the bloom to have large blotches of colour,

which, had the season been mild and without frost, would have concentrated at the edges of the petals. Some florists assert that they do not remember a more unfavourable season during the past twenty years, but I cannot subscribe to this opinion. I have seen many collections, but none so bad as last year's.

The Royal National Tulip Exhibition was certainly an improvement on the one held at the Crystal Palace, and, with two exceptions (York and Manchester), had the greatest number of blooms. The quality was superior to the former, but inferior to either of the latter. There were twelve stands of twelve blooms (two in each class), thirteen stands of sixes, twenty-two stands of three feathered blooms, thirty-five stands of three flamed blooms, thirteen stands of six breeders (two in each class), and thirty-two of three breeders (one in each class).

On looking over the stands for the novelties, I found the following:—Marchioness of Normandy (Willison), a flamed byblømen, with long cup and greasy base, but a good marker. Eva (Willison), long cup, pointed petals, pure base, and, as respects marking and colour, resembles Washington, though called a rose. Seedling 873 (Willison), almost same as Eva, in every respect. Queen (Willison), form good, greasy base, and the inside petals do not clip close, but stand the same as in General Barneveldt. Gem (Willison), good cup, petals narrow, and base rather yellow. Saxon (Willison), feathered bizarre, narrow petals, very pure, but will never make a variety. Sir J. Paxton (Willison) feathered bizarre, pure, good cup, but narrow petals, and shows in some states three shades of yellow; yet, as shown in Mr. Willison's stand, was beautifully marked, and being placed next to Surpasse Catafalque, lost nothing in comparison. In a flamed state, it beams with scarcely any feather. Gem of Gems (Willison) is very inappropriately named, as its form will always militate against its being even a gem. As shown here, it was long in the cup and had narrow petals, although it was pure. Juliet (Willison),

feathered rose, good cup and bottom, when in a broken state, but it is doubtful whether it will mark well enough to make a first-rate variety. Masterpiece (Slater), a feathered bizarre, was very conspicuous in the first stand of sixes, the first stand of threes, and in a beaten stand. This variety is famous for its beautiful yellow and black, as well as its purity, but it is rather long in the cup. Miss Edgeworth is nothing more than Triomphe Royale, and ought never to have been staged under any other name. Omar Pacha (Groom) is a flamed bizarre, the yellow ground pale, the base pure, but the beam is out at every point, and there is scarcely any feather; the petals are also narrow and the cup too long. Miss Porter, a flamed bybløemen, long cup, greasy base, colours dark, and marks well. The same may be said of Miss Groom, which is nothing more than Miss Porter. Fleur de Marie (Groom) is a flamed rose, very pure, and marks well, but the petals are narrow and the cup too long. Amyntas, flamed rose, short in the cup, petals narrow bottom greasy, beautiful marker, and rather blue at the bottom of the beam. Radiance is a flamed rose, good cup, narrow petals, greasy at the base, and marks in the style of Bacchus. Nepaulese Prince, good cup, rather greasy at the base, little beaming, and scarcely any branching from the beam. Cyclops is a flamed bizarre, cup rather long, bottom pure, and, as shown here, is worthy of a place in a collection. Sophonisba (Groom), a fourth-row flamed rose, the best in the class. Tintoretti (Slater), a fourth-row flamed bizarre, good form, pure, and has been good three years; a shy increaser, and has never made any increase in the broken state. Breeders only three roots. Amongst the breeders, was Sobraon (Battersby), a bizarre, of most excellent form and purity, with good broad fleshy petals. Earl of Warwick (Groom) is a bybløemen of most excellent character, and has broken well, both as a feathered and flamed flower. Mrs. Lea (Lea), is a rose breeder, which has nearly every good property; it is rather too long, but there are a great number of the

new varieties much worse. Willison's Superba, a bybløemen, is also good. Seedling (Ashmole), a bizarre of excellent properties. Gem (Battersby) is a rose breeder, of very great merit, and also breaks well. Leander (Groom), is a first-class bybløemen. Charles Albert (Groom), a bizarre, is also first-class. Anne Hathaway (Slater), a rose breeder, not excelled in the class, was sown seven years since, and has bloomed thrice.

Having enumerated all the novelties that attracted my notice, I must, as a matter of course, say a little about the judges and judging. I cannot agree with them in putting Mr. Turner's pans first, particularly now form and purity are the desiderata. The flowers were extremely large, but were long past their prime, and, in consequence, much out of shape. They had been fine flowers, and ten days previously would have merited their places, but they could not be put in comparison with young springy blooms, full of elasticity, whilst they were unmoved by the sun's rays, and had not strength to stand in form. There is another thing to be noticed, or rather a question to be answered, and that is, what is purity? There were but few pans of pure flowers, and a definition would be of service to those who are desirous of conforming to the schedule, as it would enable them to make a much better stand, if they dare run the risk. The judges were Mr. Norman, of Woolwich; Mr. John Mart, of Nottingham; and Mr. James Houlker, of Blackburn; thus representing north, midland, and south.

The next exhibition is to be held at Sheffield, and it is to be hoped that it will be liberally supported, and that there will be no need to have recourse to private funds. Many parties clamour for a schedule, whilst it is impossible to make one out, without incurring great risk; and if those who intend to be subscribers, would send their names and subscriptions early, it would enable the conductors to see their way clearly. Notwithstanding there were upwards of sixty subscribers to the meeting, and upwards of seventy pounds paid in

prizes, the committee are minus nearly all the expenses of the judges, advertising, &c., and it is neither right nor proper that, after conducting a national meeting so well, as a reward for their trouble and exertions, they should have a large sum of money to pay.

CLASS A.—TWELVE DISSIMILAR BLOOMS, TWO IN EACH CLASS.

1. £6 10s. Mr. Charles Turner, Fanny Elsler, J. Sanderson, Addison, Mary Headly, Alcon, Purple Perfection, *La Chesis*, *alias* La Belle Nanette, Lord Hardinge, Polyphemus, Heroine, Polyphemus feathered, Surpasse le Grand.
2. £5. Mr. Samuel Bromley, Comte de Vergennes, Queen of the North, Apelles, Heroine, Princess Royal, Charles X., Lac, Violet Quarto, Paul Pry, Queen Charlotte, Aglaia, Duke of Devonshire.
3. £3 10s. Mr. Wm. Lea, Heroine, Comte de Vergennes, Arlette flamed, Aglaia, Queen of the North, Baguet, Lord Denman, Bacchus, Charles X., Sir Sidney Smith, *alias* Magnum Bonum, San Joe, Duke of Devonshire.
4. £2 10s. Charles Williams, Esq. Lalla Rookh, Scarnel's Bijou, General Barneveltdt, Polyphemus, Lady Catherine Gordon, Pompe Funebre, Juliet, Crook's Mary, King Arthur, Triomphe Royale, Queen of the North, Vivid.
5. £1 10s. Polyphemus, Heroine, Sarah Anne, Victoria Regina, Mary Lamb, Sarah, Aglaia, Charles X., Miss Edgeworth, Earl Douglas, Merit, Lord Denman.

CLASS B.—SIX BLOOMS.

1. £5 10s. John Turner, Esq., Lac, Pilot, Bacchus, Miss Ada, Masterpiece, Queen of the North.
2. £4. Mr. Samuel Barlow, Charles X., Aglaia, Bacchus, Polyphemus, Heroine, Maid of Orleans.
3. £3. Mr. J. Forman, Pilot, Charles X., Princess Royal, Maid of Orleans, Triomphe Royale, Heroine.
4. £2. Mr. Richard Nunnerley, Charles X., Pilot, Violet Amiable, Bacchus, Heroine, Aglaia.
5. £1 10. Mr. Wm. Lea, Heroine, Aglaia, Violet Amiable, Bacchus, Charles X., San Joe.
6. £1. Mr. J. Godfrey, Pilot, Charles X., Queen Charlotte, Maid of Orleans, Triomphe Royale, Heroine.

CLASS C.—THREE FEATHERED BLOOMS, ONE IN EACH CLASS.

1. £2 5s. Mr. Samuel Barlow, Masterpiece, Heroine, Maid of Orleans.
2. £2. Mr. J. Godfrey, Maid of Orleans, Heroine, Charles X.
3. £1 15s. John Thorniley, Esq., Heroine, Polyphemus, Violet Amiable.
4. £1 15s. Mr. Wm. Lea, Heroine, Baguet, Apelles.
5. £1 10s. Mr. Wm. Lea, Maid of Orleans, Charles X., Aglaia.
6. £1 5s. Mr. Saml. Bromley, Charles X., Queen of Sherwood, Comte de Vergennes.
7. £1. Mr. George Mort, Charles X., Baguet, Heroine.
8. 15s. Mr. Saml. Treacher, Lady Stanley, Mary Lamb, Charles X.
9. 10s. Mr. Henry Travis, Comte de Vergennes, Beauty, Duke of Devonshire.

CLASS D.—THREE FLAMED BLOOMS, ONE IN EACH CLASS.

1. £2 10s. Mr. Charles Turner, Triomphe Royale, Chellaston, Mr. Perkins. 2. £2 5s. Mr. Charles Turner, Alexander Magnus, Rose Magnificent, Pilot. 3. £2. Mr. J. Godfrey, Princess Royal, Aglaia, Pilot. 4. £1 15s. Rev. S. Creswell, Polyphemus, General Barneveldt, Aglaia. 5. £1 10s. Rev. S. Creswell, Pilot, Miss Edgeworth, *alias* Triomphe Royale, Bloemart. 6. £1 5s. Mr. Charles Turner, Fleur de Marie, Omar Pacha, Miss Porter. 7. £1. Mr. Charles Turner, Aglaia, Polyphemus, Maid of Orleans. 8. 15s. Mr. Samuel Barlow, Aglaia, San Joe, Violet Brun. 9. 10s. Mr. William Whittaker, Aglaia, Bridesmaid, San Joe.

CLASS E.—SIX BREEDERS, TWO IN EACH CLASS.

1. £1 10s. Thos. Adams, Esq. Catherine, Storey's Seedling, Princess Royal, Chellaston, Storey's Seedling, Rose Seedling.* 2. £1 5s. Mr. John Slater, Sobraon, Gem (Battersby), Leander, Earl of Warwick, Charles Albert, Anastasia. 3. £1. Mr. Wm. Lea, Maid of Orleans, Willison's (unknown), Mrs. Lea, Kate Connor, Charbonnier, Sir Joseph Paxton. 4. 17s. 6d. Mr. Wm. Willison, Sir Joseph Paxton, Queen, Seedling, King, Juliet, Superba. 5. 15s. Mr. J. Slater, Lord Valentia, Florian, Anne Hathaway, Seedling P 2, Lady Catherine Gordon. 6. 12s. Mr. John Hart, Juliet, Anastasia, Seedling, Duchess of Sutherland, King, Seedling. 7. 10s. Mr. Samuel Barlow, Duke of Devonshire, Godet Parfait, Lady C. Gordon, Pompe Funebre, Delicata, Kate Connor.

CLASS F.—THREE BREEDERS, ONE IN EACH CLASS.

1. £1. Mr. Henry Travis, Seedling, Queen of England, Duke of Hamilton. 2. 17s. 6d. Mr. Wm. Whittaker, Queen of England, Maid of Orleans, Willison's King. 3. 15s. John Peacock, Esq., Sir Robert Peel (seedling), Sir Joseph Paxton, Nina (seedling). 4. 13s. Thos. Adams, Esq., Princess Royal, Catherine, Storey's Seedling.* 5. 12s. Mr. Samuel Barlow, Princess Royal, Celestial, Captain Nolan. 6. 11s. Mr. Luke Ashmole, Anastasia, Duchess of Sutherland, Seedling No. 8. 7. 10s. John Peacock, Esq., Miss Morris, Polyphemus, Annie McGregor.

* Mr. Parkins sent these blooms (the first of six breeders, and the fourth of three breeders), by William Parkinson, of Derby, and staged them in Mr. Adams's name, although the flowers were Mr. Parkins's, of Sadlergate, Derby. When Mr. Adams arrived in the evening, he could not see the committee, to rectify the error, and he made a second journey from Derby, on Saturday, with the like result. He then wrote to the president, William Peacock, Esq., repudiating the blooms. The committee have decided on having the prize money returned, and the prizes forfeited. Would that every one would follow his example (but not at so great a sacrifice of time and money), to prevent such practices for the future.

MR. WILLISON'S PRIZES.

BREEDERS.—Zechariah Peacock, Esq., Sir Joseph Paxton, King, Juliet.

THREE RECTIFIED SEEDLINGS.—Zechariah Peacock, Esq., Juliet, Saxon, Gem.

It will be seen, on reference to the awards, that nearly all the pans consisted of old varieties, and such as are early, and being plentiful, there was ample choice. The collections of many exhibitors, my own amongst the number, were not in bloom, and therefore could not cut more than twelve varieties. Breeders are invariably a week earlier than rectified blooms, and therefore were numerous. Had it been a genial season, the pans would have been double the number, and the exhibition much better, so far as regards varieties and blooms.

JOHN SLATER.

Cheetham Hill, near Manchester.

New Golden-Yellow Tea Rose,

ISABELLA GREY.

MR. LOW, jun., met with this Rose (of which we give an engraving) while travelling in South Carolina, in the garden of the raiser, Mr. Grey, of whom he obtained it. At that time it was covered with flowers, and exposed to the burning sun, without being injured in the slightest degree. The flowers are very large, colour golden yellow (not straw, orange, lemon, or canary yellow, as all other teas and noisettes are); foliage and growth as fine as any of the Tea Roses in cultivation; and a profuse flowerer. One plant in our possession had more than forty expanded and other flower buds.

From what we can hear, there seem to be three Roses claiming this name, with some variation, such as Miss Grey, or Miss Julia, Mary, or Jane Grey; but what merit these others possess in comparison we are

unable to state. The one that surpassed all others, in Mr. Low's estimation, is Isabella Grey.

We here quote from the *Gardener's Chronicle*, the passage speaking of this Rose, exhibited at the meeting of the Horticultural Society, April 7, 1857. "Among this class of plants, however, the great attraction was a new deep-yellow climbing Tea Rose, from South Carolina. This was furnished by Mr. Low, of Clapton. The plant exhibited was, unfortunately, not in good condition for showing, having got greatly injured from travelling; it, however, indicated what a fine thing it is. It had upwards of forty blooms on it, large and double, and nearly as fine in colour as that of the old double yellow, which nobody can flower. This new sort must, therefore, be regarded as a great acquisition, should it continue to be a free bloomer. It is called Isabella Grey, and it was mentioned that as there are two or three Miss Greys now in cultivation in this country, whose merits have not been proved, persons desirous of obtaining this plant ought to take care to get the sort now produced."

E. G. HENDERSON & SON.

Wellington Nursery, St. John's Wood, London.

Propagation of Pinks, and Carnations.

ONE of our correspondents has asked for instruction in the propagation of Carnations and Picotees. This request, however, arrived too late to write a fresh article, and if deferred, the time for this season would be gone by, we therefore give a short extract, from the pen of the Rev. H. Burgess, LL.D., curate of Saint Mary's, Blackburn.

Although the finer varieties of these beautiful flowers require great care in their cultivation, and will often disappoint the amateur, their great beauty will yet ensure the patience and skill necessary for their successful growth. I lately saw a handful of Carnations in a friend's hand, and wondered that efforts are not made

to grow them in greater profusion. Many are disgusted with the losses which occur from bad management in their first attempts to get a collection, and give up the pursuit; but this is not wise. A season or two will make the grower more skilful and fortunate. Seeing these flowers advertised, an amateur orders a lot, and pays perhaps two or three pounds for a dozen pairs. These come probably from a distance, not in pots, as they ought to do, but with their roots exposed, and before they can be placed in a safe position, they have suffered much injury. A wet season then comes on, and the young plants, not being strongly rooted, rot in the ground. If they escape this catastrophe, they often throw up only a miserable flower, unworthy of notice; no grass, as the offsets are technically called, is produced; and sometimes the original plants will turn yellow and die. When, after all his trouble, the would-be grower finds his dozen pairs reduced to about half the number, he despairs of becoming an adept in the art of flowering these plants, and retreats, leaving the field to more fortunate, because more patient, rivals. Now, try another season at all events, and, without incurring fresh expense, propagate from the stronger varieties which yet survive; in this way you will advance more confidently, and at length overcome difficulties which arise from want of experience more than from any peculiarities inherent in the flowers.

Common Pinks and Carnations are increased easily by cuttings taken off at a hard well-developed joint, and planted in a shady situation in the garden; if under a hand-glass, success is more sure. But we have known great quantities rooted without that aid, by being preserved for a few days from the sun, and kept moist. The soil should be sandy, and the cuttings fixed in it so that it will press firmly upon the cut portion. But this plan will not do for finer sorts of Carnations and Picotees, and the safer way is to propagate these by layering. So many directions have been given for the performance of this operation, that anything further on the subject may appear to be superfluous; but as

amateurs are yearly rising up and commencing their apprenticeship, such information must be continually renewed. The principle of layering is to enable a cutting to take root without its connection with the parent plant being quite dissevered, on the plan in which inarching and similar operations are performed. A cutting often dies, because from some cause inherent in itself, or external to it, its power of elaborating sap is not strong enough to enable it to form roots; and this power is increased and rendered certain in a layer, because it derives its juices from the parent plant. An incision is made upwards at a joint, to the extent of about half an inch, and a section of the stalk or stem is thus presented, similar to the portion inserted in the soil, in the case of a cutting, only it is half the substance or thickness. This cut portion is then firmly inserted in fine soil, and fastened securely with a peg. The layer then forms roots from two sources; from its own vital mechanism, as in the case of a cutting, and from the assistance derived from the original plant, of which it still forms a part. When rooted, the layer is cut off and potted, and henceforth its growth is self-sustained and independent.

Where a great number of young shoots are available for propagation, a very gentle heat should be created, by means of a bed of leaves or cut grass, on which a small frame should be placed. Sandy soil must then be put in, to the depth of six inches, and the cuttings, with all their leaves, firmly fixed as directed above. The glass being put on, the frame should be kept close for a week, and shaded for a day or two; and solar light being gradually admitted, the young plants will form roots more rapidly than in the open ground. Extremes of drought and moisture must be carefully avoided, since the one will rot the plants at the cutting, and the other will cause the soil to contract and leave the cutting bare. Failures must be expected at first, but soon, as great a certainty will characterise these operations as most others. This is the proper time for pursuing either of the above methods.

EARLY STRAWBERRIES IN THE NORTH.—I gathered the Black Prince on the 12th of June, being about a week earlier than usual with us, and they are selling now (June 20) at a shilling a quart. I also gathered, on the 19th, splendid fruit, well coloured and of good size and flavour, from the following fine new sorts, viz. Triomphe (an American seedling), Marquise de la Tour Maubourg (French), Princess Royale (French), Ne plus ultra (Belgian). All the latter sorts were grown upon strong cold soil, and rather shaded, while the Black Prince was grown in the warmest and best place; thus showing that the Black Prince is only a week earlier, with the advantage of the best place. They came in about as they stand above. They may be seen on calling at the following address:—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*—P.S. Sir Harry and Keen's Seedling will take about ten days yet to ripen.

QUERY.—My apple trees are all covered with blight,—that is, a sort of white mould. I dressed the trees with oil and tar, but that does not remedy the evil. Will some one of your correspondents oblige me with his advice?—A NEW SUBSCRIBER.

Opinions on Flowers, &c.

It will save some trouble to parties forwarding blooms, if they will first compare them with other varieties out, and be certain that they possess equal merit. Pansies with radiated eyes will not do in the present advanced state of floriculture, and Pinks with serrated edges need not be forwarded. This will answer several correspondents.—J. W., *Winton.*

T. W. D.—Your seedling Pansy is well deserving a name, and we should like to see it again. What name will you give it? A beautiful creamy ground, with a fine heavy purple belt, of dense colour, and calculated to please any one, the side eyes, as they are called here, being very prominent.—J. W., *Winton.*

MIDLANDER.—The two flowers sent are both incorrectly named. The one you have as Clark's Memnon is a coarse Polyphemus, and that as Hayward's Jenny Lind is a bad break of Rose Magnificent. Jenny Lind, true (Haward), is a distinct and far superior variety to Rose Magnificent. Clark's Memnon,

true, is no Polyphemus ; but the true flower, I believe, is very scarce and in few hands. It is a fine flamed bizarre.—JOHN HEPWORTH, *Hendries Gardens, Lea Bridge Road, Leyton, London, Essex, N.E.*

J. P. M.—Your seedling red or brown feathered bizarre possesses some of the best properties. - Shape good, perfectly pure, and the ground colour very bright. Get it to feather round each petal, without breaking, and then it will make a good addition to our already good class of bizarres.—J. HEPWORTH.

H. K., which I suppose means Hoaks (posted at Manchester).—The two byblæmens, breeder and broken flower, are not the same variety, as stated, nor either of them seedlings, but very old ones. The broken flower is Triomphe de Lisle, an older seedling than either I or the parties who sent it ; and the breeder, said to be the same, is one of the Chellastons. To the other question asked by these worthies, I say *yes*, undoubtedly, I engage to give an unbiassed opinion on Pinks, Ranunculuses, Carnations, and Picotees. I am not a Dahlia fancier, therefore I do not profess to meddle there, but leave them to better authorities. George Glenney, I believe, is the most competent for things of that sort. I wish parties sending subjects for opinion would give their proper names, address, &c. in full, and if it be their wish, the initials would suffice for the work.—J. HEPWORTH.

R. C. R., *Koon*.—SEEDLING PANSY DODO.—Cream-coloured ground, with blue purple margin, colours well defined, and of good shape. A very fine variety, and, from the scarcity of good light ground flowers, will be found a very great acquisition.—JOHN DOBSON.

A beautiful pansy was forwarded to us, in a small tin box. Unfortunately, in opening it, we so mutilated the note accompanying it, that we could not distinguish from whom it came. The bloom is really extra good, being very large, of fine form, with good lower petal, and excellent colour. Should this reach the eye of the sender, we shall feel obliged by the name he has given it.—A. G. SUTTON.

Notes for the Month.

AURICULAS.—Plants in pots must now be looked at. Clear all weeds from the pots, and remove leaves as they decay. In dry weather, the plants will require to be watered pretty frequently. Where any of the plants furnish strong bottom offsets, they may be detached, and planted in small pots, placing them in a shaded situation, and giving a full supply of water.—THOMAS GIBBONS, *Bramcote*.

CARNATIONS AND PICOTEEES.—Regulate the number of buds, and tie up the advanced ones as directed for Pinks, only that when you have tied them, you may tear down the calyx from the top to the tie, and thus release the petals all round alike. Prepare the card also, and regulate the petals as they perfect themselves. The shoots at the bottom may be either layered, if they are long enough to bend down under the soil, or pulled off and piped, like Pinks, if they are short, only that they must be struck with a slight bottom heat under a hand-glass, instead of in the cold open ground. They are thus layered: cut off the leaves, all but those on the three upper joints; about a third of an inch below the second knot or joint under those leaves, which would be three inches from the top, and on the bottom side of the stem, cut a slit sloping upwards toward the middle of it, passing the knife through the joint; but carefully abstain from coming more than half-way through the stem; then as carefully cut off the piece that is below the joint on the outside, so as to cut close up to it. This done, stir up the soil in the pot, and mix some sand with it; peg this layer down into the soil below the surface, so that the plant will, with the split joint attached to it, be exactly upright, and the split will be open. Press the earth gently about it, and so proceed with more. Water and set them by, to finish their bloom, and till these layers strike root. Any gardener will, for a trifle, show you how to do this, and it is simple enough to perform, though it requires practice. The best pegs are made of fern, but any twigs that will form a hooked stick in miniature, four inches long will do.—G. GLENNY, *Dunganon House, Fulham.*

CHRYSANTHEMUMS, the most untidy of all our flowers, can be grown dwarf by taking off cuttings now. Prepare a little bottom heat, take off the strongest tops three inches long, cut them close under a joint, take the leaves off one inch high, and let this inch be set into rich sandy soil in a pan or pot, plunged into the heat, the glasses to be covered close down and wiped every day. Occasionally refresh them with water; they will soon strike, with good management, and should then be potted off into pots, size forty-eight, and after a few days to establish them in the shade, they should be placed in an open situation, where they will have all the sun, but where they cannot strike their roots into the ground; here they must grow until the middle of September, but must never be neglected. They will, many of them, flower at twelve inches high. The old roots may be planted in the ground to grow for young stock, and flower, if they will, in the borders.—G. GLENNY, *Dunganon House, Fulham.*

CINERARIAS.—Sow seed without delay, in light rich soil, with a good portion of silver sand, in pots or pans, which must, after sowing, be kept in a warm damp place, and shaded from the sun. The plants will soon be visible, and must be hardened off as they grow, but never be allowed to get thoroughly dry,

Cuttings that are struck and rooted, should be potted off and put into a frame, and hardened as they grow. Let no plants get pot-bound.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

ERICAS.—Due attention having been paid to the directions given last month, nothing more will be required than to keep them clean and free from weeds. The situation assigned to them should be such as to allow of their receiving abundance of light and air. Watering freely must be attended to in dry weather.—J. FRETTINGHAM, *Beeston.*

FLOWER GARDEN.—The advice given last month cannot be materially departed from, as all plants as they advance in growth will require tying and pegging, each branch being laid in its proper place, and every shade of colour being kept distinct, as otherwise, the effect will display bad management. Tie Hollyhocks, and give them manure water plentifully. Let Dahlias have your special attention at this season. Look well after that troublesome pest, the small maggot, which so plentifully abounds in the centre of the plants. If not frequently looked over, many of your plants will lose their centre. As the plants advance in growth, bear in mind to secure four side branches to each plant, as close to the ground as possible. Take out the side branches above the four; this will admit of light, and free circulation of air through the plants. Secure each side shoot with a small stick to prevent the wind or rain stripping them off. Attend to the earwigs. Keep clear from weeds. Lighten the surface of the earth. Give water freely, and in increased quantities, as the plants advance in growth. Manure water, twice a week, will add to their strength. Keep the plants securely tied.—RICHARD EDWARDS, *Nuthall.*

FRUIT GARDEN.—Where there are wall trees that have not yet had their summer pruning and nailing, that very needful work should be done in the beginning of the month. There is a great advantage in beginning early in the summer to train the useful shoots in a proper direction; and, at the same time, to clear the tree from all ill-placed and superfluous shoots; for when the useless wood is timely cleared out, and the useful shoots laid in close and regular to the wall, the sun, air, and gentle showers will have access, so as not only to promote and improve the flavour of the fruit, but also to harden or ripen the shoots properly, which is absolutely necessary to their producing good fruit and wood next year. Bear in mind, however, particularly in respect to Apricot, Peach, Nectarine, and Morello Cherry trees to leave in as many of the well placed moderate growing shoots as can be conveniently laid in. At the same time nail them regularly and closely to the wall. Again look over the espaliers, and if any of the proper shoots, laid in last month, are displaced, let them be made firm in their proper position.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

THE GREENHOUSE will now be looking very gay, and will require due attention to watering, shading, and admission of air as

freely as possible in hot weather. Continue to make cuttings from such exotics as are wanted for increase, if this should not have been done the preceding month. The best method of planting cuttings at this season, is to prepare a frame in size according to the quantity of cuttings you wish to put in. Fill it to within six or eight inches of the top with light sandy soil, in which the cuttings should be placed pretty close together, and well watered. Place on the lights; keep them close for a week; shade the glass when the sun is hot, and at the expiration of the week leave the glass off at nights that the cuttings may receive the dew, which will be of great use to them. But this method is only to be practised upon such plants as are half hardy. The more tender kinds, and especially the more succulent ones, will require a moderate hotbed to cause them to make roots. Repot any cuttings or small plants as they require it. By keeping them growing through the season, many of them will make nice specimens for next season. Keep clear, if possible, of the greenfly. Attend to training and tying out all plants as they require.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempshill Hall.*

FUCHSIAS.—If the directions given from time to time have been followed, the first lot of plants will be in full bloom. Nothing will shorten their beauty sooner than being allowed to get dry, from which cause they lose much of their foliage. Watering must therefore be attended to; and if it is desirable to prolong the bloom, the bees must be excluded, and the plants carefully shaded. Those for blooming late must receive their final repotting at once.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

KITCHEN AND COTTAGE GARDEN.—Prepare vacant ground to receive plants suitable for the table in autumn and winter. Many crops, both from plants and seeds, will require diligent attention. Get ready some good wet manure, and dig ground for Cabbage, Savoys, Cauliflower Broccoli, Curled Broccoli, Brussels Sprouts, &c.; transplant in rows, two feet apart and eighteen inches between each plant. Endive will do with one foot each way. Earth up early Celery, and continue to plant out for successional crops. Where required, continue to sow the following seeds:—Lettuce, Turnip Radish, Turnips, Endive, and Spinach. After the 20th, sow Cabbage of various sorts, for spring use. Take up Garlic and Eschalots, as they attain their full growth. Keep all crops free from weeds. Each vacant place, at this season, exhibits bad management. Water all newly-planted crops.—JOHN BEARDMORE, *gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—Young stock must be liberally supplied with water in dry weather. Few varieties, except dark selfs, will be anything approaching their true character. Little requires to be done, except making sufficient stock and gathering seed, which may be sown as soon as ready. Such seedlings as have not

been bedded out should be attended to at once, that they may bloom in their true character through the autumn.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—Plants that have done flowering may now be allowed to have all the sun and air possible, to ripen the wood and prepare them for cutting down, which must be proceeded with as early as possible. In cutting the plants down see that they are perfectly dry, before using the knife. If the plants are wet when they are cut down they bleed, and this is often the forerunner of the spot. When the shoots are healed over, which will be in a few days, a little water may be given, just enough to moisten the earth, with a fine rose watering pot. The plants must be kept close for a few days to induce the eyes to break vigorously. As soon as the eyes are ensured, give abundance of air, but protect from wind and rain when necessary. The tops may be put in as cuttings, five or six in a pot, and placed in a warm house or frame; they will be found to strike readily at this season. Many varieties, hardly worth noticing in the months of May and June, will be now in their true character, while others are not so good. A few of the most certain varieties for May flowering are given for the benefit of amateur readers. Admirable, Carlos, Conqueror (Beck), Gem of the West, Governor General, Leah, Lucy, Mr. White, Majestic, Rosamond, Sanspareil, Saracen, Una, Wonderful. A list of good June flowers will be given in my next month's calendar.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PINKS.—Proagate, if it was not done last month, by pipings, which are the grass of the plant stripped off, taken off at a joint, and the bottom leaves cut off.—G. GLENNY, *Dunganon House, Fulham.*

STRAWBERRIES.—This is an excellent time for planting on a large scale. Plant on ridges, as described in March, taking up the plants with as much earth as possible. Plant carefully and give a good watering at the same time. Nip off all runners as they make their appearance, and keep the beds clear of weeds. Mulch between the rows with stable litter, or tanner's bark, to be filled up nearly level in spring. For fruiting beds (where trouble and expense are not serious obstacles), it is better to give the alleys a coating of cow dung, and as it dries, beat or tread it level, and thatch it all over with straw, strewing chaff about the plants. The chaff may be made to lie by watering. This method answers well on light dry soils, keeping the roots cool and moist. Continue the liquid manurings as in June. Splendid crops may be obtained from beds planted in the usual manure, if the trenching, manuring, mulching, and watering are all well carried out. The ridges and other methods which I intend to describe fully at some future time, are introduced for the purpose of showing how this esteemed fruit may be produced in the highest state of perfection in the open ground.—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*



AUGUST.

Auricula Bloom and Culture of Seedlings.

MR. EDITOR,—I promised to give a few plain and practical notes on the Auricula, a true favourite with me, and be pleased to allow me my own way. In the first place, I commence with sowing seed. I speak to the young, not to the stiff-necked rebellious *auld chaps*. I am a lover of order, and order is, you are well aware, heaven's first law; and the second is like unto it,—“Everything serves an end.” These are the sum of all science. These are the two mites, even all she hath, which she throws into the treasury of the Lord, and as she does so in faith, Eternal Wisdom looks on and commends the deed. The chaste Auricula, who can describe her charms? Who can image forth her beauties? Whatever the earth showers from her virgin lap is mingled with her shape, her colour, her drapery,—but I will not here attempt a delineation of her beauty, that can only be appreciated by those who possess an educated taste, who look upon her charms directly and not through any representation of them.

Presuming that my young friends have obtained some first-rate seed of all the four varieties, sow the same in an earthen pan or box, say in January or February. The compost should be a mixture of one-half two-year old clean cow dung, and one-half pure virgin earth, with the grassy fibres rotted therein, of the same age. To this must be added a sprinkling of pure oak leaf mould. Press the compost down pretty firmly, and place on the top about one-fourth of an

inch of pure sifted soil, on which sow the seeds in drills, very thinly, and cover very lightly with the same kind of soil. Having finished this, I place all in a cold frame, and keep gently moist, till the seedling plants appear; after which, I administer, with a teaspoon, drops of rain water, of the same temperature as the inside of the frame, between the rows, ever avoiding wetting the new born plants. When they have attained four leaves, I gently lift them, and place them in pots, about an inch and a half apart. I do not plant all over the pot, but merely round the rim; by which means I find them to thrive better, and by the beginning of August, they are large enough to place singly in three-inch pots. All being removed, and put into the frame, I shut close up, and shade for a few days. When they have taken root, I give plenty of air, but still shade until the end of September. I scarcely give any water through the winter, and only begin to give it in February, if the season is mild, and free from frost and cold cutting east or north-east winds. In the beginning of August (of course this is the second year), they will require to be shifted into larger pots, say four or four and a half-inch, using the same kind of compost. I do not at this time shake out the root, but merely rub off the top and outer earth, around and below it, and shift into a clean or new pot, using the same precautions as before, and giving each a very slight watering, round the rim of the pot, to avoid wetting the foliage. The majority of them will bloom the following April. During February, I administer weak sheep manure water once a week; in March, twice a week, and so continue until I see the truss rising in the foliage.

The first week in August, every year, I repot all my old stock, not wholly, but partially, as before described, and at the expiration of every third year, I shake the plant clear of every particle of compost, taking away with my fingers all decayed fibres, and breaking off the tap root, if too long, leaving about two inches, with all the fibres attached, and then pot afresh, using plenty of

Drainage, with a little fresh fog on the top, to prevent the compost washing away. I only administer a little water around the plants (as before mentioned), from day to day, until they have fully taken to the fresh pots, and then by degrees I give them the full allowance, till the middle of October, when I lessen the supply, and by the beginning of November they receive very little indeed, and all through the winter I seldom or never water, and my stock of old and young plants, at the return of spring, show the greatest health and vigour. This is my simple procedure with both old and young plants, and I assure you, Mr. Editor, I never feel afraid of obtaining a most healthy and glorious bloom. It is a plant that will not thrive, or give satisfaction, if attention is not paid to the very simple requisites I have plainly pointed out; and I can say conscientiously, that with me, no plant is of so easy culture. But the fair and beauteous *Auricula* spurns at fog or moss growing on the summit of her domains, with decayed leaves adhering to her stem, and greenfly all besprinkled over her garments. Linnæus, in describing a fine flower in its glory, calls it the "nuptial dress." They are in glory, garmented each in its own.

The four classes of *Auriculas* differ much in colour, namely, green, grey, and white edges, and selfs. For as one star differeth from another in glory, and as one saint in heaven differeth from another saint in glory, so one *Auricula* differeth from another *Auricula* in glory. There is one glory of the green edge, with its bright yellow tube and finely raised anthers, snow white centre, black, or nearly black shining velvety ground, with the jet black nicely pencilled or feathered into, but not in any part reaching the edge; another glory of the grey edge, another glory of the white edge, and another glory of the self, with its brilliant yellow, raised trumpet tube, and golden anthers, paste like the drifted snow, with an equal circumference of dark purple, blue, crimson, yellow, or orange. Each has its glory, of which it would be shorn, were it to make an *ambitious*

attempt to usurp the glory of its neighbour. Such co-ordinate facts or pictures as these may possess little interest to the mere technical naturalist, whose sole aim is to discover new genera and species, or the mere practical florist, whose object is to find plants of commercial value. But they tend to raise up profound reflection in the truly philosophic mind, and to the religious mind open up glimpses of the deep things of God. They show that the plant and its members have been before the mind of God, prior to the time when he said, "Let the earth bring forth grass and herb, yielding seed after his kind, whose seed is in itself, upon the earth: and it was so, and God saw that it was good." Such stubborn facts as these seldom or never enter the minds of numerous florists; for often will you hear them boasting of raising flowers, such as *Carnations* or *Picotees*, and frequently taking to themselves (poor frail dust and ashes, dressed in a little brief authority,) all the praise, and glory, and honour of their perfect shape, purity, bright and equal colourings, &c. What vain glory, oh! little, frail man. Rather praise and thank God for giving you such beauteous forms and colours; for without his transmission, no such objects would have been presented to your eyes for admiration. Therefore bear in mind the commandment, Love God, and your neighbour as yourself. Man has æsthetic tastes implanted in his nature; these are all gratified to the full by the lovely forms presented in the vegetable kingdom, all arranged by him who confers on man his love of the beautiful, and supplies the objects by which that love is gratified; and here it is that philosophers have not been able to agree upon the theory of the beautiful. If there had been any acknowledged doctrine on this subject, there would have been little difficulty in showing that plants are fashioned in accordance with a high style of beauty. In particular we are as yet without any generally received principles in regard to what constitutes *beauty in form*. In such circumstances, we can appeal to no

admitted rules, but we can appeal to our own feelings, which declare that the plant, in its general form and in its corolla, exhibits perfect models of beauty. Would not reason be offended if uniform flowers had not uniform colourings? Doubtless there were lovely flowers in former periods, "born to blush unseen," at least by human beings. No doubt there was a design in all this, that the succession of created forms in the vegetable kingdom had a reference to the epoch of man; and that just about the time when there appeared an eye to receive and convey the impressions of beauty, and an intellect to derive satisfaction from the contemplation of it, then it was that the most highly adorned productions of Flora's kingdom, such as the following, were called into existence.

GREEN EDGES.—Campbell's Lord Palmerston, ex. ex.; Campbell's Admiral Napier, ex. ex. ex.; Booth's Freedom, ex. ex.; Ashton's Prince of Wales, ex.; Beeston's Apollo, ex.; Smith's Waterloo, ex.; Page's Champion, ex. ex.

GREY EDGES.—Cheetham's Lancashire Hero, ex. ex.; Fletcher's Mary Ann, ex. ex.; Sykes's Complete, ex.; Fletcher's Ne plus ultra, ex.; Kent's Queen Victoria, ex.; Waterhouse's Conqueror of Europe, ex.; Keyson's Ringleader, ex.

WHITE EDGES.—Cheetham's Countess of Wilton, ex. ex.; Lee's Earl Grosvenor, ex. ex.; Hepworth's True Briton, ex.; Ashworth's Regular, ex.; Taylor's Glory, ex.; Summerscale's Catherina, ex.

SELFS.—Netherwood's Othello, ex. ex. ex.; Spalding's Blackbird, ex.; Barker's Nonsuch, ex.; Martin's Mrs. Sturrock, ex.; and Heap's Smiling Beauty, ex. ex. ex. From this last, I have not yet been able to obtain even a small offset.

Here let me add, that I am solely indebted to Mr. Peter Campbell, Graham's-road, Falkirk, for the healthy plants put into my possession, and his instructions for their well-being.

I grow all the above, and many others, but these I recommend, and if well grown, they will not fail to afford true pleasure to those who enjoy Flora's charms.

Really, Mr. Editor, I look forward with anxiety for some practical notes on this sweet pet, from old cultivators. There are Messrs. Hepworth and Hammond, gentlemen of some thirty years standing. What

are they considering about? Their granaries are full, I am sure. Why then not sell out? Keeping up for a dearth, I presume.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

We should be most happy to receive from either Mr. Hepworth or Mr. Hammond some details of practical experience, which we are sure would be highly appreciated by the readers of the *Midland Florist*. What say you, friends?

The New Annual, *Acroclinium Roseum*.

THERE has been so much talk about this plant that a few words upon its origin, its properties, and its culture, may not be out of place; though as to its origin, we must qualify the word, we ought to have said its introduction. As a general remark upon English growers for sale, we may safely say that they are not good judges of novelties. Whether it is prejudice, or real ignorance of the qualities they should appreciate, that sways them in their choice or rejection of a subject, we cannot say; but one or the other does prevail to a great extent. They seem to have no more notion how a thing will tell with the public than so many children; hence we have Dahlia growers rejecting as worthless flowers which turn out popular, and pledging their character to the excellence of downright rubbish. Hence we have things raised in England, or collected for English nurserymen, but not appreciated, sold to the continental buyers, grown into a good stock, advertized at a good prize, and, as the curiosity of the public is roused, sold in great number or quantity, to the very parties who, when they had them, could not value them. Camellias, rejected by the raiser, have been bought by foreigners, for a trifle, propagated abroad, and sold for extravagant prices, after their

continental trip. Report, who is rather an odd fellow to deal with, sometimes, says that *ACROCLINIUM ROSEUM* was in the hands of an English nurseryman, who has a collector generally out, and being thought little or nothing of, was sold to a continental dealer, and has now found its way into the German catalogues, been retailed as high as ten seeds for half-a-crown, and we have procured scores of packets of no more than twenty seeds, for a shilling, the present season, and they have been generally grown by people who had faith in our recommendation. Well, badly as novelties are often grown the first time, it has proved the best annual introduced for years. Taking *Rhodanthe Manglesii* as a general favourite, and, when well grown, considered an elegant thing, *Acroclinium roseum* is better in every respect. The plant is handsome, even without a bloom, whereas *Rhodanthe* is a delicate, miffy, weak subject, hanging both its leaves and its flowers, so that unless it is on a shelf, even with the eye, we must hold a flower up to look at it. Our new friend, on the contrary, sends up its blooms on single stems, as straight as a corinthian column, and the flower sits at top as firmly and as flat as the blooms of a *Zinnia*. Individually the flower is of the same character as that of the *Rhodanthe*, but it is more double, much brighter, and larger. The foliage is close and narrow, like a young *Araucaria*, and the flower stems, which come from the centre of every shoot, stand up as strong and as "upright as a dart." Those who allowed such a subject to go out of the country, to be reimported at ten times the price, must be a little annoyed to see the advantages they lost. However, it is here again, and will be the first favourite among tender annuals. One advantage it has over *Rhodanthe*, even when gathered; the flowers exhibit themselves so well in a bunch, while *Rhodanthe*, on miserably weak footstalks, hangs every flower, and only shows the back. Giving the new annual first place among the favourites, we shall just offer a few words as to its culture.

The seed is *fluffy*, and hangs together, but if separated by rubbing it among sand, you have one advantage, for you can see how many good seeds you have; the bad are rubbed into a very small compass, whereas the good solid seed loses little of its bulk. We have by us a German catalogue, intended for retail prices, in which *ACROCLINIUM ROSEUM* is described thus, "Splendid half hardy everlasting, resembling, but surpassing in beauty, *RHODANTHE MANGLESII*; flowers large, of a rich rose colour; ten seeds, two shillings and sixpence." This description is borne out in every way, for we have it now in bloom, scores have seen it as well as ourselves, and they do not hesitate to pronounce it to be the best annual we have had for many years. If people did common justice to *RHODANTHE MANGLESII*, we might sum up the necessary treatment of the new rival, by directing our readers to treat it exactly as they would that favourite annual. But too many do not practice rightly with even that, though it has been a favourite for years. It was pretty much the same with Balsams; not one person in fifty did the best with them, and consequently, of all the flowers in cultivation, few were generally so badly shown. There is an improvement in the culture of Balsams, and perhaps fifteen hundred circulars, with full instructions, sent out with our packets of Balsam seed, since January, have done something towards this. We shall confidently reprint the following directions, to send out with the seed of *ACROCLINIUM ROSEUM*, next year, for, from the success which has attended the number sent out this spring, we shall look for quite as great a call for that as for Balsams. The soil which we found best adapted for *ACROCLINIUM ROSEUM* was two parts loam from rotted turfs, one part peat earth, with fibre in it, and one part rotten dung, from an old hotbed, all rubbed through coarse sieves, before they were mixed, and afterwards measured off and well mixed. Fill an ordinary seed pan with this, and level it, by pressing it down with the bottom of another pan, but not hard. Upon this sow

the seed evenly, an inch apart, if you can, and press it down gently with the hand. Upon this, sift through a fine sieve, peat earth, so as to cover well an eighth of an inch. Upon this, lay very lightly, some damp moss, so as to cover all from the sun's rays, and keep the seed damp until it vegetates. Place it in a hotbed, or in the stove, till it comes up, when the moss may be removed and the plants merely kept in the shade and occasionally watered. When the young plants are large enough to handle well, prick them out, round the edges of five-inch pots, about a dozen in each pot, and you have only to water them when dry. From the time they are pricked out they must have plenty of air and be placed near the glass, for if they become drawn, it spoils their future growth. When they have grown into strength, and made some progress towards a bushy habit, they may be potted singly into three-inch pots, in the same sort of soil, with one-fourth the height of the pot filled with crocks, for drainage. They must now be placed in the greenhouse, near the light, and have air in fine weather, for if the plants once get drawn up they will be spoiled. In these pots they may be grown until the roots reach the sides, when they must be shifted to four-inch pots, from these to five or six-inch, and if the roots fill them up again, give them another change, for the larger they are grown before they bloom, the handsomer will they be. The size to which they grow depends a little upon the season of sowing, which should be at three different times, March, April, and May. Even June is not too late, but the plants will not grow so large before they bloom, and the flowers will be more scanty. And now we have two or three points that must be mentioned, because much depends on due attention to them. The sun takes the colour from the flowers, therefore, from the time they begin to open, they must be shaded, or removed into the shade. If this be not attended to, the flowers will turn white. There is a singular feature in the growth, not observable in many flowers. So long as it is in bud, they all look down, as if they were suddenly

drooping for water; be not deceived then into giving them any, while the surface of the soil is damp, but when you do, let the water run through the pot, and give no more till the soil dries. When the bud is about to open, it raises its head and stands upright. Some may be inclined, when the plant is young, to pinch off the leading shoot, to encourage the under growth. This is so much a matter of taste, that there is no harm in serving one-half the plants so; but the flowers, if more numerous, are all the smaller for it, and as this will assuredly be a show plant among tender annuals, it is as well to have some each way. We think the plant handsome, when left to its natural growth, but we have them both ways, and scarcely know which we like best. The flower is what is called everlasting, because, when gathered, it will keep a long time; but we think most growers will be too anxious for seed to allow the flowers to be cut. It is quite clear that it grows more handsome under glass than it does in the open air, but, as all the flowers stand horizontally, it will be a fine bedding plant.

GEORGE GLENNY.

Mirror of the Seasons.

AUGUST.

“Being rich arrayéd
In garment all of golde, doun to the ground,
Yet rode he not, but led a lovely mayd
Forth by the lily hand, the which was crowned
With eares of corne, and full her hand was found.”

THE mean temperature of August is but little lower than that of July. Hot nights are frequent, and the action of the sun's rays is assisted by the radiation from the warm earth, which now throws back into the air a portion of the heat received from the sun, instead of absorbing it, as in spring. It is observed that during the greatest heats of summer, east and south-

east winds prevail, and there is usually much less rain in August than July. The month received its name from the Romans, who so called it in honour of Augustus Cæsar; but before that it was known as Sextilis, that is, the sixth month from the beginning of the Roman year, which was reckoned from March. The heat is now such as to require the extreme attention of the florist, and neglect is sure to be the seed of disappointment. The water pot should be often in requisition. Watering frequently at night will be the means of insuring fine flowers, when the extreme heat of the sun would have deprived us of their beauty. With all the heat we have very plenteous dews, so greatly acceptable to the parched soil.

While the florist looks on intense heat as the destroyer or spoiler, in a great measure, of his favourites, still he must take a wider view of nature, and rejoice to see the ripening of the golden grain. The royal poet must have been a great admirer of nature, when he wrote those exquisite words, "Thou crownest the year with thy goodness; and thy paths drop fatness. They drop upon the pastures of the wilderness; and the little hills rejoice on every side. The pastures are clothed with flocks; the valleys also are covered over with corn; they shout for joy, they also sing." Nothing is more delightful than rambling in the country. We could ourselves—we were very near saying—live in the open air, but should prefer a pair of white sheets to the greensward for a bed. Talking of bed, reminds us of a note received from a very old friend, in which he wishes us to impress on our readers the importance of early rising. He says, "No one knows the benefit of early rising who has not tasted of its delights. I wish I could persuade every one to rise with the sun, especially during the summer months. There is not a finer picture in the world than a summer sunrise: the glorious tints diffused over the whole render it totally indescribable, and, to use the words of the country showman, "must be seen to be believed." It is needless on our part to make any comment on early rising; those who have once tasted its pleasures will require no

proof that it is healthy, pleasant, and profitable, both for body and soul, therefore why lie in bed? Plenty of work awaits us, and if our readers will refer to the Notes for the Month, they will find full instructions. Dahlias want tying, Roses want budding, greenhouses want cleaning, seeds want sowing, insects want killing, in a word, work wants doing. Let us, therefore, at once set about it, remembering the old adages, "Do it, and it will be done," and "If it is worth doing at all, it is worth doing well."

Notes of Tulips,

AT THE NATIONAL EXHIBITION, 1857.

MR. EDITOR,—In trespassing once more upon your pages, I wish it to be understood, that I only record my own opinions for the express benefit or information of my brother amateurs, who had not an opportunity of visiting the exhibition and seeing for themselves. I have no immediate interest in placing my notes before your thousands of readers, as I shall carefully avoid generally those flowers I am offering for sale, and give only a faithful description principally of *new* varieties. To the truth of this description, according to *my* ideas of a tulip, I pledge myself. I have nothing to do with any false character that may have been given by other individuals, and I beg to state, that if my notes differ from those of other persons, I cannot help it; they are my own ideas, not borrowed, neither are they written in a vindictive spirit, and therefore I trust they will be received as they are tendered, with a kind and generous meaning.

FEATHERED BIZARRES.

Masterpiece (Slater), as exhibited in the first pan of six and first pan of three, is really a gem, and well deserving the name. A rich yellow ground, very pure, form moderate, with a nicely pencilled black feather. I consider it the *finest* feathered bizarre in the exhibition.

J. Sanderson, in the first pan of twelve, also arrested my attention, being very pure, ground colour paler than Master-piece, rather long cup, with a rich brown feather encircling each petal in an unbroken form down to the base.

Dr. Horner.—Ex. ex. ex. pure, with a light feather of rich brown, on a fine yellow ground. Worthy a place in the most select collection.

Colbert (Slater).—Much in the same style as the last, but a bolder flower. The only drawback was its missing the feather in several places. *This, I was informed, was not usual*, but my system is to describe them as I see them.

Nimrod (Walker).—This, being a seedling of my own, I did not intend noticing, and it is only at the request of several friends that I do so. Exhibited by Mr. Treacher. A rich scarlet pencilled feather, on a pale yellow or lemon ground of exquisite purity, and though rather long, a very interesting variety, especially to those who have any fancy for red bizarres.

Great Britain is also a fine feathered bizarre, and worth inquiring after.

FLAMED BIZARRES.

In this class, I saw nothing among the new varieties worth notice, except a seedling in a losing pan, No. R 600, a fine flamed flower. In the older sorts,

Duke of Devonshire, in the second and third pans of twelve, I never saw better.

Merit.—One of the everlasting Chellastons. Much in the way of a fine Pilot. In the fifth pan of twelve.

FEATHERED BYBLOEMENS.

Gem of Gems (Willison), though past its best, showed signs of being something deserving the high and distinguished name given to it. A fine cup, very pure, rich heavily pencilled flower, and worthy of a place in the most select bed. Mr. Slater has certainly allowed a vindictive spirit to show itself, in describing this and Mr. Willison's flowers generally; and as counter evidence, I beg to say, that Mr. C. Turner has purchased the stock of the Gem of Gems, five roots, leaving one in the hands of the raiser, for twenty-one pounds nett,—a proof that at least another individual had as favourable an opinion of it as myself. It would be very unpleasant to offer such contradictions as I should be obliged to do, were I to venture to describe the remainder of Mr. Willison's flowers, which are, generally speaking, a credit to him, and neither "greasy" nor *crabby*. Truth is truth, and although most men profess to love it, they do not always speak it, or like to hear it.

Queen of Sherwood (Battersby), in the sixth pan of three, a week too old, was in her usual fine style. A seedling from Louis XVI., which it is destined to supersede. It is of exquisite purity and good form, with rich pencilled feather, a real gem, and I can confidently recommend it to any one.

Violet Amiable.—In several stands, a very nice sort, and very desirable to those who do not possess it. A heavy dark feather, on a pure white ground, moderate cup, and very steady.

Juliet.—In the fourth pan of twelve. A very nice feather, rather long cup. Will this be Norman's Juliet?

Euphrates was exhibited in its usual style, being skipped at the top of each petal, otherwise a nice feathered flower.

FLAMED BYBLÆMENS.

Duchess of Sutherland (Walker).—A fine bold flamed flower, of good form, and pure. I am not aware *what* Walker is the raiser of this flower, but I can recommend it with every confidence; it is very good.

Miss Porter.—In the sixth pan of three. A fine flame, pure, rather too long, yet in the present dearth of good flamed flowers, worth inquiring after.

Miss Groom.—Exhibited by the same grower. The same notes as for Miss Porter will do for this, only it is a little paler.

Queen Charlotte.—This variety I never could class above mediocrity, yet, if it could be depended on, as exhibited in the second pan of twelve, it would do, and be worthy of its high name.

Bridesmaid.—In the ninth pan of three. A fine flamed flower, a new break from the breeder, this season. The only drawback is a rather long cup, with a slight cloudiness at the base, but a more genial season may in a great measure remove the latter.

FEATHERED ROSES.

Mary Headly.—In the first pan of twelve. A very nice feathered rose, good form and pure, one likely to please the most fastidious, and an improvement on many of the old feathered roses.

Bijou (Scarnel) I had heard and read so much of, that I was taken by surprise at its appearance, and quite at a loss to conceive how any man could class it as a first-rate sort. It has a fine feather, but narrow petals, and quarters, and can never stand high.

Queen Catherine (Thackeray).—Also a fine feather, but, alas! stained stamens; very narrow at the base, and, like the preceding, apt to quarter.

Mary (Crook).—In the fourth pan of twelve. Also a nice feather.

Mary Lamb.—A fine feathered rose, appears to require careful growing. In the fifth pan of twelve, very fine. In the eighth pan of three, a greenness pervaded the white. This variety, I should say, requires a glass shade to help it.

Miss Ada, in the first pan of six, was a very nice pencilled flower, ex. ex. fine, and worthy of a place in any bed, however select.

Miss Evelyn, exhibited by Mr. Forman, of Chellaston, though not in a winning stand, presented features of merit, and was in nice style.

FLAMED ROSES.

Miss Edgeworth, sold at the late Mr. Thackeray's sale, at Nottingham, by that name, is certainly a fine flower, but nothing more than a fine Triomphe Royale, and would not be tolerated in a stand with that variety.

Amyntas, a nicely marked flame, in one of the losing stands, had many admirers, and possessed many attractive points, though a slight blue mark was perceptible at the bottom of the beam.

Fanny Elsler and Lachesis.—In the first pan of twelve. Both worth looking after, in this, at present scarce class of good flowers.

BIZARRE BREEDERS,

In these, I saw nothing very striking amongst the new varieties, Paxton and King predominating.

Sobraon (Battersby) was fine, with stout petals and good form. This variety breaks well, either in the flamed or feathered state: in the latter, it is a gem.

Storey's Seedling also possessed some features of merit.

BYBLOEMEN BREEDERS.

Willison's Queen.—A fine breeder, but opens with a yellow base, which soon bleaches. It is a flower that stands well, and in the hands of some parties, would have been honoured with a favourable description; but, as I am in possession of the reason why, I excuse the man who will exhibit such a spirit in the description of any flower: respect to his fellow man should have dictated more kindly feelings.

Duchess of Sutherland.—Ex. ex. ex. fine form, and pure.

Mrs. Norman.—The same.

Sir R. Peel.—A seedling. In third pan of three. Pale colour, with fine bold anthers, pure, a little above the standard, but a desirable sort.

Seedling No. 30 (Naylor).—A fine pale coloured breeder.

Seedling No. 14, exhibited, *not for competition*, by a person named Martin, from Whalley, was very fine, much in the way of Bridesmaid, and with equally bold anthers.

ROSE BREEDERS.

Queen-of England (Parker).—Ex. ex. ex. fine, of great substance, good form, and pure, but breaks worthless.

Mrs. Lea (Lea).—A fine large rose breeder, with stout petals and bold anthers, and of a pleasing colour; a little above the desired standard, ex. ex. pure, a seedling from Lady Lilford, and when plentiful, will be much sought after.

Industry.—By the same raiser. Not so large as Mrs. Lea, though a nice clean breeder, and worth inquiring after.

Mulame Laffay.—A fine rose breeder, pure, and of good form. I saw this afterwards, in a broken state, feathered in a fine way, though the colour of the feather was not of that richness which is desirable; nevertheless, it was a desirable sort, and a good contrast to other feathered roses.

Mrs. Heap.—A nice pure breeder, and breaks feathered.

Lord Guilford Dudley.—A fine breeder, rather inclined to be tundishy, otherwise good form and ex. ex. pure.

Queen Henrietta, Lady Helen Marr, Agnes Strickland, and Ann Hathaway (Slater).—All fine and good form.

Celestial.—Pale, rather above the standard, but pure.

Lord Derby.—Ex. ex. ex. fine form, very pure, but, like Queen of England, does not break well.

Seedling No. 48.—Exhibited by John Turner, Esq. Good form, something in the way of Lord Derby, rather deeper, but a very desirable sort.

Here, Mr. Editor, I regret to state, that having detected a gentleman, *in appearance*, using the scissors rather unmercifully upon a pointed-petalled breeder, and understanding that others had done the same, I declined putting down any more *short cups*. Prudence and generosity oblige me to withhold the individual's name; but, should this meet his eye, I trust it will convince him that his *success* by such means will be as shortlived as it is discreditable. I wish it to be understood, that these remarks have nothing to do with the seedling last referred to. As our next exhibition is to be held in scissor-making country, I trust the Sheffielders will keep a *sharp* look out after any such degrading practice. I had taken my notes of the rose breeders while the flowers were being staged. I now close my remarks, and beg to recommend the foregoing to the notice of amateurs, when they can be met with at a reasonable price. To the working man, I say *no*—than expend five or six weeks' wages on

a solitary Tulip, and find, by the time he has one to dispose of, the price reduced to a few shillings. I would advise every young grower to try to raise seedlings, and if they will be careful what they take seed from, under the instructions given for fertilization, by your respected contributor, Mr. John Cunninghame, they need not doubt of raising something really good, which, with careful management, will bloom in five years. At least, I say, try.

JOHN WALKER.

Winton.

Nottingham Horticultural Society.

NOTTINGHAM, the metropolis of the midland counties, has, perhaps, more gardens in its neighbourhood than any other town in the kingdom; consequently, Nottingham is not behind in floral exhibitions. The above society annually holds four fetes, and the second of these came off on July 7, at the Exchange-rooms, and certainly an excellent exhibition it was. We have not space in our present number to give a full list of the awards, and therefore shall notice the most conspicuous objects. The Roses were good, but rather past their best. American Poppies, quite as double as a *Ranunculus*, white, tipped with cherry, were shown by Mr. Frearson, and, being a novelty, were greatly admired. Among the plants, were *Dipladenia crassinoda*, *Hoya imperialis* (very pretty), *Ixora coccinea*, *Stephanotis floribunda*, *Aphelaxis macrantha purpurea*, *Achimenes* Sir Treherne Thomas, *Erica Cavendishii*, *Vinca rosea*, *Cissus discolor*, *Fuchsia Orlando*, *Allamanda cathartica* (bright yellow flowers), *Lantana crocea*, *Clerodendron Kämpferii*, *Justicia carnea*, *Fuchsia Voltigeur*, and *Fuchsia Venus de Medici*. These two *Fuchsias* were really splendid, six feet high, and loaded with flowers. *Venus de Medici* has not shown so well in many exhibitions, this season, as last, as it requires shading,

but this specimen was the finest we have seen. A very fine Fern, *Dicksonia antarctica*, was the admiration of the whole assembly. *Adiantum assimile* was also pretty. Among the fruit, the most noticeable were, Providence Pineapple, Black Hambro' Grapes, exhibited by J. W. Evans, Esq., M.P., and Mr. Johnson, of Colwick; Fastolf Raspberries, by Mr. Lymbery; Red Currants (seedling), by Mr. Frearson; Naples Black Currants, by R. Levick, Esq.; and Black Circassian Cherries, by S. R. P. Shilton, Esq. Of vegetables, although early, the best were, Red Rhubarb, by the Rev. S. Creswell; Lord Raglan Peas, by Mr. Frearson; Early London Cauliflowers, by J. W. Evans, Esq., very good; Eschallots, by the Rev. S. Creswell; Globe Onions and Broad Beans were also good. The band of the South Notts. Yeomanry Cavalry were in attendance, and enlivened the company with a very nice selection of pieces.

Fuchsias, Past and Present,

AND THEIR CULTIVATION.

WHILE arts and sciences, men and morals, are rapidly progressing in improvement, step succeeding step, and each marked by some potent advantage over the preceding—the clumsy applications of mechanical power being superseded by the less complex but more powerful constructions of modern invention, and each year is productive of novelties of every shape and quality, floriculture, I am proud to say, is in no way behind its contemporaries. To the many energetic cultivators, and the editors of floricultural works, who labour assiduously, each in his sphere, we owe much of its present eminence, and much also to the impartial judges at floricultural exhibitions, many of whom, it is to be hoped, exist. But I am wandering from my subject. Looking back some eighteen or twenty years, amongst

the contents of the greenhouse of that period, the varieties of the *Fuchsia* were few in number and very inferior in quality, compared with the leading sorts of the present time. For example, let *F. coccinea*, *gracilis*, *elegans*, and *microphylla* be placed by the side of such varieties as Epps's Wonderful, Autocrat, Glory (Banks), Conqueror; or the line of *Chandlerii*, *Acantha*, Dr. Jephson, all good in their day, be put in comparison with Duchess of Lancaster, England's Glory, Clio, and the improved character of the *Fuchsia* is illustrated. Well grown specimens of these new varieties, six or eight feet high, pyramidal in form, and in full bloom, are noble objects. I have under my care, some such specimens, which I have grown this season, and they are now flowering in perfection, in the conservatory. If a few hints on their cultivation will be of any use to your readers, they are at your service. One of the most important considerations, and which must receive particular attention, is the proper preparation of the compost in which to grow the plants; for, if the radical condition of a plant be at fault, no future treatment, however consistent, will produce the desired result. Soil that has been at least twelve months in the compost ground, frequently turned over during frost, and, if turfy, broken into lumps as small as walnuts, is the material best suited for all plants. To have specimens similar to those alluded to in flower in May, cuttings are taken at the end of July, or beginning of August, from growing shoots, which have no flowers or flower buds on them: the points are best. These are inserted in rather light sandy material, in thumb pots, clean and well drained, and the pots plunged, near the glass, in a frame, with a gentle bottom heat. They are shaded and occasionally sprinkled, in the afternoon, in hot weather. When rooted, the plants are removed to a cooler situation, but are kept growing, and repotted as they need it, until they are in six-inch pots, in which they are wintered. The soil used is equal parts of rough loam, peat, well

decomposed leaf mould, and about one-sixth silver sand. A moderate supply of water, during the dull months, and the usual temperature of the greenhouse, is all that they require. The side shoots are duly stopped as they proceed in growth. They receive their final shift into thirteen-inch pots, about the first week in February, using the above compost, with the addition of some rough charcoal, and are exposed to a temperature of from sixty to seventy degrees by day and fifty by night, with shade in clear weather. They are frequently syringed with soft water, and after the plants have begun to grow rapidly, manure water is applied twice a week. Stopping is not practised later than the second week in March. The pots are plunged in tan, with a gentle bottom heat. One central support is all that is needed. Greenfly is kept down by fumigation. The plants are removed into a cold house as they are coming into bloom.

GEORGE TAYLOR.

Danson, Kent, July 8.

Stamford Floral and Horticultural Society.

THE summer exhibition of this society being fixed for July the 15th, St. Swithin's saw us seated in the railway carriage, with our umbrella for a companion, remembering the old popular superstition, that it always rains on St. Swithin's. But as there is no rule without an exception, this proved a glorious fine day, not a cloud being visible. Tradition says, that in the year 865, St. Swithin expressed his desire to be buried in the open church-yard, and not in the chancel of Winchester minster, and he was therefore interred in the open ground; but the monks thought it disgraceful that their saint should lie in the church-yard, and resolved to move his body into the choir, with solemn procession, on the 15th of July. However, it rained



Digitized by Google
ROSE, "ISABELLA GRAY."

so violently on that and the forty succeeding days as had hardly ever been known, which caused them to abandon their design as heretical and blasphemous, and instead, they erected a chapel over his grave, at which many miracles were wrought. Although we had no rain on St. Swithin's, there has been no lack of it since. The show was held in the grounds of O. Edmonds, Esq. The scene was charming, and it appeared as if the whole town of Stamford had turned out for a holiday. The only inconvenience was from the intense heat of the sun, shining gloriously from the unclouded sky. About a dozen marquees were erected on the ground, and all were filled with subjects for exhibition, excepting the secretary's tent, and another, which was set out with the good things of this life. The band of the Coldstream Guards was stationed under a marquee, in the centre, but some way or other, the music was drowned, persons looking at the flowers were out of earshot. We must say that we were disappointed in this, for to listen to the Coldstream band, in the metropolis, is quite a treat, and we had anticipated hearing them here to advantage.

The Balsams were not well grown, and many of the specimens were what we should term barelegged. The Roses were very good, although perhaps a trifle past their best. The most prominent were Robin Hood, Victoria, Louise Peronny (very fine), Souvenir de la Malmaison, Louis Odier, Palais de Crystal, Comte de Nanteuil, Madame Vidot, Jules Margottin, La Reine, Coupe d'Hebe. The Roses were shown in moss, which had a very pleasing effect. The silver cup was most deservedly awarded to Messrs. Paul, of Cheshunt. These gentlemen exhibited twenty-four Hollyhocks (single blooms), the best of which were, Nebulum, lake; Mrs. Oakes, blush; Eva, good guard petal; Miss Nightingale, sulphur; Miss Neville; and Pearl. The last had a tinge of rose on one side. Some fancy coloured Petunias were very fine. A purple variety, blotched with white at the edges, was remarkably good.

No name was affixed. Schoene von Arnstadt was also good. Madame la Comtesse Gerard is prettily marked. The ornamental Poppies were very small. Carnations and Picotees were exhibited without names. One pan of Picotees had ornamental cards at the back; we think plain cards would have been more suitable, except the whole had been shown on ornamental cards. Pine-apples were exhibited good. The principal plants were *Clerodendron Kämpferii*, *Ficus elastica*, *Hydrangea Hortensis*, and some fine specimens of *Kolosanthes coccinea*. The following Fuchsias were exhibited in fine style:—Exquisite, Mrs. Story, Clio, and Pearl of England. Cockscombs were also good. We were much pleased with this exhibition, and think the exertions of Mr. Johnson and his fellow workers extremely praiseworthy. Mr. Glenney, of London; Mr. Gray, of Bourne; and Mr. Watson, of Rockingham Castle, were the censors.

H. J.

Leicester, July 18, 1857.



Torenia Asiatica.

THERE is not a more beautiful plant in either stove or greenhouse, than this lovely subject; nor is there one that we know of so illused and misunderstood. It strikes freely from cuttings, in loam, two parts, and leaf mould, rotten dung, and peat earth, one part each. If you can get loam from rotted turfs, you want no leaf mould. Let this be well mixed, and the turfy peat must be first chopped small and rubbed through a coarse sieve. We will suppose the cutting to have rooted. Pot it in a large thumb pot (about two inches and a half), and pinch out the top to within two inches of the soil. This will induce side shoots, which in turn must be stopped when they are two inches long. As soon as the roots reach the sides of the pot, change it

to one a size larger, when it will continue to grow, and you must continue to stop, until there are ten or a dozen shoots, which are to be allowed to hang over the pot. Shift again and again, as fast as the roots fill the pots, and as the shoots may be longer than the pot is high, turn another pot wrong way upwards, to stand it. The silly plan of growing it on a trellis is every way objectionable. If any of the shoots hang lower than the rest, shorten them, because they should all hang alike in length, or nearly so. When you have got it into a six or eight-inch pot, suspend it from the roof, and it will be a mass of blue flowers, and with great care in the watering, will continue in perfection for months. A succession of young plants is desirable, because you would otherwise have to continue shifting until the plant becomes unmanageable. Growing it on a trellis, or training it upwards, spoils it. The flowers cannot be in a good position, the plant looks constrained, and however well it could be grown, will look poor. We have tried it, and have always found that it did not grow so healthy, or if it did, it never looked so; but, as a proof that hanging is its proper habit, the shoots make no effort to turn up, whereas, if we attempt to grow a climbing plant to hang down, it will turn up, in spite of us. We have grown the plant in the greenhouse and the stove, and succeeded in both, though an intermediate house appeared to suit it best; and it does all the better for being shaded during the three or four middle hours of the day, in very hot weather. It may be grown and bloomed at almost any season. The cuttings should be taken from side shoots, about three joints long, and struck under a small bell-glass, with soil within an inch of the top of the pot, and half an inch of silver sand on the surface. Make the sand wet, so that you can stick the cutting in deep enough to touch the soil, but not go into it, and the glass must be small enough to touch the sand all round, so as to exclude the air. The sand must not be allowed to dry, and the glass must be wiped dry daily, until the cuttings have struck root.

Cultivation of *Corræas*.

MOST of the varieties of this genus are exceedingly handsome greenhouse shrubs, nearly always in bloom, but flowering most profusely in winter and spring, and therefore well worthy of a place in all collections of winter-flowering plants. Although not very difficult to propagate, I thought it best to leave that part of their culture in the hands of the nurseryman; for the propagation of any hard-wooded plant is a work that requires practice, time, and careful attention, and as nice young plants can be procured for a trifle, I think it would hardly be worth the amateur's while to spend his valuable time in these rather delicate operations. To commence, I will suppose that six healthy young plants of *Corræa bicolor*, *C. Grevillii*, *C. Harrisonii*, *C. picta superba*, *C. speciosa*, and *C. delicata*, all growing in three or four-inch pots, are procured in the autumn. Select those that are dwarf, bushy, and strong, and neither under nor over-potted. When received, give them a good syringing, to wash off any dust that may have accumulated on them during their journey, and then place them in the greenhouse, near the glass, but out of the way of cold draughts, giving water to the soil very carefully in damp cloudy weather; but a free circulation of air must be admitted on all favourable opportunities, and about once a week, the plants should be turned half-way round, in order to secure perfect specimens. About the second week in March, see to the state of their roots, and if the balls are found to be full of nice healthy roots, shift them at once into pots two inches larger, using good strong rich fibry peat, and mellow turfy loam, in the proportion of two parts of the former to one of the latter, well intermixed with plenty of sharp silver sand; and some small lumpy bits of charcoal, or small pieces of potsherds, will answer well in keeping the soil open and allowing the water a free percolation through the mass. After the decay of the fibres, mix the whole well together,

and take care that it is in a nice friable condition. The fresh pots should be thoroughly clean, inside and out, and good drainage must be secured, by placing plenty of potsherds, or some good substitute, in the bottom of the pots, and then a layer of moss, or fibry peat, to keep the drainage open. When the plant is turned out of the pot, the roots should be examined, and all decayed or damaged parts removed, and the potsherds or other drainage adhering to the ball, should be carefully picked out. This I consider very essential in the cultivation of all hard-wooded plants. Place the plant in the centre of the fresh pot, and fill up with the above compost, making it rather firm round the old ball; give a good watering with a fine rose watering pot, and place them in the warmest part of the greenhouse, close to the glass; but if a pit or frame be at command, that would be the best situation for them, provided the temperature can be kept at about forty-five degrees by night, and fifty-five by day. During their growing season, they require to be kept rather moist, particularly for three or four weeks after being repotted, in order to induce the young roots to strike into the fresh soil. This may be accomplished by frequently syringing them overhead on the mornings and evenings of fine clear bright sunny days; but care must be taken not to saturate the soil, as that would be very injurious to them. The admission of air must be regulated by the temperature out of doors. About the middle of April, they should be slightly shaded in the forenoon of clear sunny days; but air must be admitted on all favourable occasions, to encourage short-jointed and vigorous growth. If all has gone on satisfactorily, by the middle of June, they will require another shift, into pots two sizes larger. Use the same compost, give a good watering, return them to their former situation, and keep them rather close and moist for nine days or a fortnight, in order to encourage rapid growth. When fairly established in the fresh pots, a more liberal supply of water will be necessary; but this should be administered with care, and air should be freely

admitted; and as the nights will be warm, the lights may be taken off the last thing in the evening, so as to expose the plants to the night dews, which will greatly assist in keeping the wood strong and short-jointed. The lights should be replaced in the morning, and a slight shade be afforded during hot weather. By this time, they will be making vigorous growth, therefore training must be attended to. Any side branch taking a decided lead, should be cut back, and the main shoot neatly tied to a thin stick. This is supposing the object is to obtain well-formed pyramidal specimens, which is decidedly the best method of training; but any other form may be easily obtained by timely attention. About the middle of August, place the plants out of doors, where they will be sheltered and shaded from the mid-day sun. Here they may remain till damp cold weather occurs in autumn, when they should be removed into the greenhouse, and placed near the glass, in a light airy situation, turning them half-way round occasionally, and giving plenty of air at all favourable opportunities. To obtain large specimens in the shortest space of time, the flowers should be regularly picked off the first season; but if left on, they will be very beautiful the first season. After the plants have done blooming in the spring, they should be placed in a rather cool situation, for three weeks or so. Then prune them rather close, cutting back all the straggling shoots, and place them in a rather close moist atmosphere, to induce the buds to break freely. When the young shoots are about an inch long, repot, giving a liberal shift, and using the same soil as before, and then the same routine may be followed as in the preceding year. One good shift will be sufficient, and the plants may be placed in the open air a month earlier. When the specimens become too large to be conveniently repotted, they may be slightly disrooted every year, repotting them in the same sized pots, and they will grow and bloom for a number of years. I have a nice plant of *Correa speciosa*, growing on its own roots, which has been treated as above for

more than thirty-seven years, and is still vigorous, strong, and healthy. They are rather subject to the red spider, but this is easily kept under by the free use of the syringe.

E. CLEETON.

Dumbleton.

The Loss of Tulips.

THE PROBABLE CAUSES OF SUCH LOSSES.

FRIENDS and Florists, Tulip Fanciers in particular, and more especially those who grow, or pretend to grow Tulips on the grounds of R. J. Hendrie, Esq.,—I some time since gave my opinion relative to the nature of the soil in these grounds, and, although a little objection may be made to the situation, I still conform to my former ideas, and, if anything, am more convinced in my own mind that a better soil or finer situation cannot be found for the growth of florists' flowers, Tulips in particular; but, as I have before stated, this, like all new and fresh soils, requires to be worked, manured, prepared, and sweetened for the purpose. That being done, there need be no complaint about soil. Other little obstacles which may be in the way remain with ourselves to remove, or still leave. Now is the time to be up and doing, and no time ought to be lost in making ready your soil and beds previous to the latter end of October, in order that they may be in readiness to receive the bulbs early in November. Some covering should also be prepared, as occasion may require, as soon as the bulbs are put in, for, in spite of the opposition against covering, I protest and maintain, that besides care and management in the preparation of the beds, and care and management in the planting of the bulbs, more than all is required care and management in covering, to keep out wet, and protect from severe frost, from the time of planting till March, when the buds are above ground, and the most critical period is past. Get your buds safe above ground, and all will be well: you will find them to succeed afterwards by ordinary covering from hailstorms and heavy rain, and you will see them grow vigorously, show a healthy appearance, bloom strong, with good colours, and fine markings. Mr. B., or the East-end Grower may say what they choose about the badness of the soil, or the dampness of the situation. Wet, in the first onset, is most injurious to the bulbs, and when accompanied with severe frost, as it has been for several seasons lately, perhaps every other day or night, for weeks together, first a change from heavy rain to severe frost, and *vice versa*, these, and these alone, are the chief causes of our loss of Tulips, and unless guarded against, we may expect the like results in future seasons. Had we not sufficient proof of this, in our grounds, last year? and the same disaster occurred, not only here, but throughout the country, north, south, and midland, all from similar causes. Mr. B. supposes I have not been in the habit of losing Tulips by wholesale, and most certainly here I agree with him; never has anything of this sort occurred to me before, but neither did I before leave them to the inclemency of the

weather, and I shall not do so again, unless forced by similar circumstances, when I undoubtedly shall expect a similar loss. If spared with good health, during next winter, I hope to be able to show Mr. B. and all our friends down here, a sample of what Tulip growing ought to be. The only friend I could prevail upon to have his bed covered, was Mr. George Dunn; this was not until after Christmas, and before that time danger might and did occur. This bed proved to be one of the finest, most healthy, and the best bloomed in or near London, and this bed alone ought to satisfy every one here that the fault is not in soil or situation, and that the chief thing is care, covering and protecting, the three first months after planing, viz., November, December, and January. If not protected during these months, it would be far better for the bulbs to be kept out of the beds till February, when all danger of having them killed and rotted in the ground would be past. However, when they are left out of the soil till February, we must not expect a good bloom. Many will be weak and sickly, the colours faint and patchy, and the whole very poor. Neither must we expect large bulbs at lifting. Early in November is the proper time for planting, and care and protection is the only mode by which we can expect them to flourish. If Mr. Bray or any other gentleman here fancies this soil to be too close, fine, and binding, there are many methods by which that evil can be removed; but it is my opinion that this soil is not, in the least degree, too close for the bottom of the bed; the bulbs like to strike their fibrous roots into something firm, to which they can hold. But for covering up, the lighter the soil is the better; if extremely close or binding, it is apt to injure the buds, and if they manage to struggle through, when they make their appearance they show a sort of cankerous redness, and it takes some time to get them into right colour. This evil, in my opinion, is the cause of many fine flowers being spoilt, both in colour and style of marking, and I would therefore advise every one who fancies his soil too retentive, to procure a quantity of rotten dry straw, stubble, leaves, or something of that sort, sifted through a coarse sieve. Take off the soil to the depth the bulbs are to be planted, lay it in a heap, and mix the loose matter with it; chop the whole down and turn it over two or three times before putting it again on the beds. By this means the mould gets well aired and sweetened before the bulbs are placed in it. Barley or wheat chaff is the best thing for loosening and lightening close heavy soils, but this material cannot be procured by every one. I made use of it years ago with astonishing success, in growing Tulips and other florists' flowers, and roots, and I would advise Tulip growers, and especially those who grow their bulbs on heavy soils, to procure for themselves such materials as they find will be the most useful ingredients for lightening their beds. I could enlarge widely on this, and also on the necessity of covering and protecting Tulip beds through the winter months, but I think I have trespassed quite sufficiently, for one time, on the pages of my old favourite, the *Midland Florist*. I will, with your permission, Mr. Editor, give, in the September or October number, an article on my practice in cultivating Tulips and other florists' flowers. In the meantime, I may just state here, that as I have the honour of looking after these grounds, I hope to have the pleasure of making myself useful among the tenants, either with my hands or by giving advice on gardening and floral matters, to the best of my ability; and with every wish for the success and welfare of the floral community,

I remain, &c.,

JOHN HEPWORTH.

Hendries Gardens, Lea Bridge-road.

Opinions on Flowers, &c.

BROAD BEANS.—G.—They are Mackie's Monarch, and the specimen is really fine. We are growing a few, which have pods nine inches long, and as straight as a rush, though a fortnight or more will elapse before they are ready to pull. It is one of the finest sorts for exhibition we have yet seen.—J. W.

MR. HUNT, High Wycombe.—Many thanks for the pleasure afforded by examining specimens of your fine Sweetwilliams. Though sadly shrivelled, there were several revived sufficiently to show the improvement on the old varieties. There were some the size of a shilling, and of all shades of colour, with petals as smooth as a Rose, and forming a complete circle. I have heard of the dissatisfaction of several parties who have tried them. They must have been served with inferior sorts, or, like the man who complained of his *double-blooming* Cherry not fruiting, did not understand them. What is wanted in this class is a perfectly circular outline, devoid of serrature, the size as large as a shilling, and colours as brilliant as possible. Collect seed only from the improved.

C. W.—The Sweetwilliams sent are very good, though too much serrated on the edge. The colours are unequalled. The four best are, 1, white, deep crimson centre, and fine white eye. 2, puce, white edge, and white eye. 3, crimson and marone, very pretty. 4, crimson, white centre, and white eye.

CARNATIONS.—We have received four seedlings from Mr. Taylor, of Sneinton. We grow neither Carnations nor Picotees, and therefore simply give the opinion of a friend near at hand, they being too far gone to send away. No. 1, a pink and purple bizarre, has a good petal, smooth on the edge, but its deficiency of dark colour is a great drawback. No. 2, a purple flake, something after the style of Mango, good petal, slightly cupped, but the purple not bright enough. No. 3, a purple flake, is large, of good colour, after Squire Meynell, has too many short stripes in it to be a first-rate flower. No. 4 is another purple flake. The white is not good, although the striping is more regular, rather flecked too much, something like Bellerophon.

SEEDLING PANSY CYCLOPS.—This is the seedling noticed at page 262. The ground colour is deep lemon, with belting nearly black and uniform with the lower petal. The bloom received by us was very large, and if, as we are assured by a disinterested gentleman, it is most constant, we have not the least hesitation in recommending it to every collector. It was raised by Mr. Bayliss, of the Rose Nurseries, Wolverhampton, and we are informed that he has disposed of it to Mr. C. Turner, of the Royal Nurseries, Slough, for a handsome sum.

SEEDLING PANSIES.—R. C. R., *Troan.*—*Pilgrim*, deep straw ground, with margin of purplish marone, solid eye, in the

style of Queen Victoria, but the ground colour is deeper than in that variety. Will make a useful flower. A favourable season will, no doubt, better develop its good qualities.—*The Provost*, fine large flower, pale straw ground, with lively lilac blue margin, good eye and fine shape. This will make a good show flower, if it comes as good through the season as it is now.—*Evangeline*, colours similar to the last-named variety, but with a deeper margin, eye good, and fine shape.—All three flowers are good and desirable.—JOHN DOBSON.

ERRATA.—Page 262, twenty-fifth line, for *Koon*, read *Troom*.

Queries and Answers.

BALSAMS.—Will the editor of the *Midland Florist* give me his advice? I have some Balsams just showing bud, and want to manage them to perfection, they being, I believe, from first-rate seed.—A NEW READER.—If our new reader will follow the directions as under, given in a previous volume, he will find it answer. Balsams generally flower on the centre stem before the side branches grow, and the centre is generally shabby when the side branches bloom, consequently they must have the buds picked off the centre stem, until the side branches are ready to bloom also, when they may all be allowed to bloom together. As the buds take, when as large as peas, above a fortnight to get into bloom, you can see what time to leave off picking the buds for any given show.

Should any of the readers of the *Midland Florist* possess the following varieties of Strawberries, I should feel happy to know where to procure them. Black Chili, Large Blush, True Chili, Pine Chili, Scarlet Chili, Bath Pine, Chinese, Mulberry, Surinam, Dutch, Old Black, Sweet Cone, Gibbs's Black Seedling, Knight's Scarlet-fleshed, Cockscomb Scarlet, Knight's Autumnal Scarlet, American Alpine, Giant Alpine, Caucasian Strawberry, Williams's Green Pine, Brown Hautbois, Globe Hautbois, Long-fruited Muscatel, Russian, Swedish.—F. G.

TALL FUCHSIAS.—How am I to get mine to be six feet high, like those I have seen at a show?—When we design to grow Fuchsias tall, we have to take especial care of the leading shoot, and to shorten all side shoots, to grow them under glass, change the pots as often as the roots reach the sides, pick off all the bloom buds as they appear, and be careful that they never want water, nor get too much of it; but when plants have become bushy, it is difficult to get them out of that way. Fuchsias ought not to be drawn by heat, because they then grow too fast and long jointed, so that they look poor, and, in fact, are poor, because the branches and blooms of those grown too

fast are further apart. They should be begun from young plants, with a single upright stem.

ROSES.—Are Roses to be shown with leaves, or not?—The managers at shows generally contrive to puzzle all Rose growers, by the absence of any definition of what is required. Hence some put them up in bunches, some in trusses, some in single blooms, like Dahlias,—some with leaves and some without; but when the schedule says “twelve or twenty-four Roses,” it should be taken to mean single blooms, fairly opened, like Dahlias, without leaf or bud. When the schedule says “twenty-four varieties of Roses,” as many people put up bunches as single flowers; but if the bunches do not contain one bloom in each as good as the single blooms on other stands, the judges must place single blooms before them.

GERANIUM CUTTINGS.—Why do cuttings of Geraniums turn yellow in sandy soil and moderate heat?—Many things will cause this. Too much water will do it, neglect of water will do it. Geranium cuttings want no artificial heat. Stick them in a shady border, under a common hand-glass, and they will root like weeds. There is a good deal too much fuss made about the cuttings of Geraniums.

GREENFLY.—How am I to get rid of the greenfly?—Smoking in the house, syringing with tobacco water out of doors, and afterwards with clear water. In fumigating the house, take care there are no holes for the smoke to get out at, and continue the supply of tobacco smoke till it reaches the ground, for it fills at top first.

AMERICAN BLIGHT.—My trees are attacked with the American blight, what can I do?—Get a stiff painter's brush, small size, and make a lye of urine and soft soap. Get warm water and soft soap, brush it all out with that, and then paint the crevices with the lye.

Can any of your readers tell me how to prevent the earwigs from eating my Carnations? Some time ago, I saw a drawing of a trap, made, I think, by someone at Birmingham. I should be glad to know if any one has found it to answer. I grow my Carnations on a stage, about eighteen inches high. I thought of gas tarring it all over. Would that answer? Would it not injure the layers? Is there any sort of poison that I could entice them to, and so destroy them? Would a strip of calico, with turpentine on it, tied round the pot, prevent them creeping up? Or, if the feet of the stage were placed in water, could they fly over? Have any of your readers tried any of these experiments, and how have they found them to answer? Last year, I tried some paper, covered with a sort of varnish, used for destroying house flies; but that was of no use, it soon became dry and hard. Birdlime is better, but then its stickiness is objectionable. Unfortunately, between my garden and a grass close adjoining, there is a hedge, the bottom of which is

covered with ivy, and as the hedge belongs the close, I cannot alter it. Tobacco pipe heads and beanstalks are of little use. I want to destroy them on a larger scale. Any information by your correspondents, will oblige, J. T., *Sneinton*.

PUFFING.—Many letters are to hand, complaining of the rubbishy things sent out as ex. ex. Pansies. My advice to amateurs is not to purchase any puffed-up thing. Send for blooms first, and if the advertiser will not furnish them, do not buy. When you see a specimen, you can judge for yourselves.—**JOHN WALKER, Winton.**

W. S.—No, there was not one of the broken flowers exhibited, and we gave little credit to the assertion that broken flowers were not ready then. On the contrary, the generality of the blooms were *too old*. This will also reply to Z. and Veto.

S. S., Scotland.—Yes; Sweetwilliams can be propagated by layers or pipings. They are of the *Dianthus coryophyllus* family, and are easily propagated. The double varieties seldom seed freely. They are very hardy and will stand a northern winter, but for anything very choice, a little protection would be better.—**J. W.**

Notes for the Month.

AURICULAS AND POLYANTHUSES.—During the month, plants in pots should have a shift. For that purpose, prepare a quantity of fresh light compost. Let it be sifted, or otherwise broken small. Pick off all decayed leaves from the plants and remove any offsets. If old plants, clear away the earth entirely from the roots, shorten any extremely long fibres, and remove any portion that may be found to be decayed. Repot with the fresh compost, closing the soil well about the roots. Any seedlings that were not pricked out last month, should have immediate attention. Water freely until they have taken fresh root.—**THOMAS GIBBONS, Bramcote.**

CARNATIONS AND PICOTEEES.—Those not layered, must be done as soon as possible, and those which are layered, must be watered and carefully attended to.—*See last month.*—**GEORGE GLENNY, Dunganon House, Fulham.**

CINERARIAS.—Seedlings that are strong enough should be pricked out into wide-mouthed pots or pans, an inch apart, in some light sandy soil. By this means, the plants will soon become strong. They will require shading for a few days, and moderately watering. Named varieties should be encouraged to make a start. Those in single pots should have abundance of air, with a little shading during the hottest part of the day. The greatest enemy to the Cineraria, in a young state, is the

blackfly, which, must be carefully looked after, or it will cause the plant to dwindle away to nothing. It may be readily found on the stem, or the top of the soil. All plants large enough may be repotted.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

DAHLIAS require the ordinary care of fastening the shoots, shading the flowers, cutting away such leaves or branches only as are in the way, or are growing beyond the flowers wanted. If there be a finer bloom than usual on a desirable variety, mark that flower for seed, and save it; but if you have any regard for the continuance of good blooms for showing, pull off every flower the moment it is useless,—the more blooms there are, the worse it is for all. It would be well to go over them daily, if for no other purpose than pulling off the buds which cannot bring useful flowers, and all those that have gone by.—G. GLENNY, *Dunganon House, Fulham.*

FLOWER GARDEN.—Many perennials have done flowering, and look dull enough: they should be cut down, and cleared of dead wood, decaying leaves, &c. Other subjects should be placed as close to them as they will grow: Scarlet Geraniums, Verbenas, Petunias, Fuchsias, &c. must be pressed into service, to keep up the brilliancy of the scene. All plants in pots must be well watered. Let tying-up be attended to, and staking, where required. Several kinds of annuals may be sown, for flowering early next spring. Keep Dahlias well tied, thinning and arranging the branches. Look after the Earwigs. Give abundance of water, and manure water twice a week. Peg Verbenas, keeping close to the ground. Support Calceolarias, or the winds will break them. Cuttings of Verbenas, Calceolarias, Geraniums, Antirrhinums, Heliotropes, Scarlet Geraniums, &c. will strike readily in the open ground.—RICHARD EDWARDS, *Nuthall.*

FRUIT GARDEN.—Wall trees still demand attention, particularly Peaches, Nectarines, and such like. Nail up all branches that may have broken loose. Figs will now be full grown, and will require plenty of sun to ripen them, therefore all the strong shoots must be laid in close to the wall, but be very sparing with the knife. These trees produce fruit only on the one-year old shoots, therefore mind and leave plenty to choose from at the proper season for pruning; and as the upper end is the most fruitful part of the shoot, take care not to shorten them, but lay them in the full length. Continue to protect the choice wall fruit from insects and birds, by placing nets before the trees. Budding may still be performed, and will be successful with most sorts of stone fruits, if not delayed beyond the middle of the month.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

GREENHOUSE.—Towards the middle or latter end of the month, shift all trees and shrubs that require larger pots or fresh soil. Continue to make cuttings where required. Repot

young stock, and keep it regularly supplied with water and free from greenfly.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempshill Hall.*

FUCHSIAS.—The whole stock will require liberal waterings occasionally with liquid manure. This causes them to continue growing, and therefore the bloom lasts longer. Any plants required to flower this season should be in their blooming pots. Seed may be gathered and sown as soon as ready.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

KITCHEN AND COTTAGE GARDEN.—General crops must receive attention as to hoeing, &c. Never allow the weeds to seed. Choose a dry day and a sharp hoe. Autumn and winter cropping must be attended to, and summer crops cleared off, the ground manured, and well dug over. Continue to sow Cabbage, Lettuce, Spinach, Cauliflowers, Onions, and Parsnips. Cabbage seed should be sown prior to the 10th, and Cauliflowers before the 20th of the month. Plant out Celery for spring use. Take up Onions as the tops wither, should the weather prove favourable, and gather seed as it ripens.—J. BEARDMORE, *gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—Continue to make stock as required. During dry weather, give copious waterings every evening. When not required for seed, pick off any bloom that shows itself; this will cause the bloom to be finer through the autumn. Seed may be sown this month in pots or pans, and placed in a shady situation.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—Every plant should be cut down not later than the second week in the month, and those that are just broken at the eyes should be shook out and disrooted, and all the straggling roots taken off with a sharp knife. Repot them into some open soil, with two inches of drainage at the bottom of the pots. Plants that have been in twenty-fours should be reduced to thirty-twos, and so on. They must be kept close in a dry frame or house, till they are established. When dry, they should be watered, and occasionally damp them overhead, with a fine rose watering pot. As soon as they have recovered from the shift, air must be abundantly given, night and day, for a few weeks, sheltering them at all times from rain and cold winds. Watch the greenfly. Cuttings may be put in, and those that are rooted should be potted off into small sixties, and placed in a warm house. A few of the varieties that are best in June, are given below. Attraction, Alexander, Conspicuum, Eva, Eclipse, Selim, Phaeton, Rubens, British Queen, Marvellous, Standard, Pallas.—J. DOBSON, *Woodlands Nursery, Isleworth.*

PINKS.—Plant out the struck pipings into nursery beds, for moving, or into their permanent beds, for flowering. Rich loam and dung will make the best soil; six inches every way the distance, in beds four feet wide.

ROSES want but little attention. Go over them, and cut out or rub off all weak shoots that grow inwards. In shrubberies, Roses may grow wildly, but in the flower garden they should be prevented from getting confused, and branches that grow inwards confuse the head of the plant, or bush, keep out air, and weaken the main shoots.—*Radford Grove.*

STRAWBERRIES.—Planting may be proceeded with on ground that has been thoroughly trenched and manured, giving a sprinkling of gas tar previously, where wireworms, &c. are troublesome. If the cultivator can command a choice of ground, a piece of good strong soil should be chosen, in an open situation, though slightly screened from the mid-day sun, and sloping to the south-east. Make nursery beds of sorts required for planting later in the season, or in spring. For this purpose, choose a piece of rich light soil, upon a dry bottom. Give abundance of water in the evening; and if shaded for two or three weeks, with mats, placed upon laths, laid across forked sticks, a foot high, the plants will be much benefitted, and be sooner ready for planting out in beds.—*W. J. NICHOLSON, Egglecliffe, near Yarm, Yorkshire.*

TULIPS.—Throw the soil out of the beds intended for this flower as soon as they are at liberty, and lay it in high ridges on each side of the beds, to be turned over once or twice a month.

Floral Exhibitions.

TULIP SHOW.

At Mr. J. Dickinson's, Wheat Sheaf Inn, Sandbach, May 25, 1857.

Premier Prize.—Lady Crewe, S. Allcock.

Maiden Prizes.—1. Lady Crewe, G. Careless. 2. Charles X., G. Cade.

Best Flamed Flower of any Class.—Duke of Devonshire, T. Robinson.

Feathered Bizarres.

- 1 Charles X., J. Booth
- 2 Magnum Bonum, C. Johnson
- 3 Charles X., G. Cade
- 4 Crown Prince, G. Cade
- 5 Waterloo, G. Cade
- 6 Magnum Bonum, J. Shore
- 7 Crown Prince, G. Dickinson
- 8 Demetrius, G. Dickinson

Flamed Bizarres.

- 1 Unknown, G. Dickinson
- 2 Unknown, J. Booth
- 3 Polyphemus, G. Cade
- 4 Polyphemus, S. Allcock
- 5 Paganini, G. Careless
- 6 San Joe, G. Cade
- 7 Sidney Smith, T. Bailey
- 8 Charles X., G. Cade

Feathered Byblacmens.

- 1 Bienfait, W. Downing
- 2 Grisdelin, S. Allcock

- 3 Washington, G. Dickinson
- 4 Belle Narene, J. Furnivall
- 5 Unknown, J. Booth
- 6 Bienfait, W. Downing
- 7 Tout, S. Allcock
- 8 Van Amburgh, J. Booth

Flamed Byblacmens.

- 1 Bienfait, G. Cade
- 2 Lady Astin, J. Shore
- 3 Unknown, G. Cade
- 4 Ditto, ditto
- 5 Van Amburgh, J. Furnivall
- 6 Bienfait, J. Booth
- 7 Ditto, ditto
- 8 Bienfait, G. Cade

Feathered Roses.

- 1 Heroine, P. Johnson
- 2 Doltie, G. Cade
- 3 Andromeda, G. Dickinson
- 4 Lady Crewe, G. Cade
- 5 Lady Crewe, J. Hodgkinson

- 6 Dolittle, S. Alcock
 7 Ditto, ditto
 8 Duc de Bronte, P. Johnson
Flamed Roses.
 1 Unique, G. Careless
 2 Lady Crewe, J. Booth
 3 Unknown, J. Furnivall
 4 Lady Crewe, T. Robinson
 5 Unique, T. Bailey
 6 Lady Crewe, G. Careless
 7 Lady Crewe, G. Dickinson
 8 Ditto, ditto
Bizarre Breeders.
 1 Polyphemus, G. Cade
 2 Polyphemus, G. Careless
 3 King, G. Careless

- Bybloemen Breeders.*
 1 Unknown, T. Bailey
 2 Rowland, G. Careless
 3 Rowland, W. Downing
Rose Breeders.
 1 Newcastle, G. Cade
 2 Andromeda, W. Downing
 3 Andromeda, C. Johnson
Yellow Selfs.
 1 Min d'Or, G. Cade
 2 Min d'Or, G. Careless
 3 Min d'Or, T. Robinson
White Selfs.
 1 Perfection, G. Dickinson
 2 Ditto, ditto
 3 Perfection, P. Johnson

TULIP SHOW.

At Mr. James Astley's, Grapes Inn, Church-gate, Stockport, May 29.

Judges. — Mr. Benjamin Haigh, Strangeways, Manchester; Mr. Thomas Willcock, Lawton Common; Mr. James Faulkner, Kersal Moor Nursery.
 Premium Prizes.—Feathered, Charles X., W. Lambert. Flamed, San Joe, J. Bakewell. Breeder, Charbonnier, W. Lambert.
 Maiden Prize.—Charles X., J. Fouldes.

Feathered Bizarres.

- 1 Apelles, W. Lambert
 2 Charles X., J. Brown
 3 Apelles, T. Handford
 4 Magnum, J. Brown
 5 Surpass Catafalque, H. Warren
 6 Lord Lilford, J. Brown
 7 Surpass Catafalque, T. Handford
 8 Duc de Savoy, L. Hussey
 9 Crown Prince, T. Handford

Flamed Bizarres.

- 1 San Joe, J. Bakewell
 2 San Joe, G. Greaves
 3 Charles X., T. Bullock
 4 Lustre, W. Lambert
 5 Polyphemus, J. Clark
 6 Pilot, T. Barratt
 7 Albion, W. Lambert
 8 Charbonnier, J. Clark
 9 Flame de Guard, T. Handford

Feathered Bybloemens.

- 1 Bienfait, J. Brown
 2 Bienfait, G. Greaves
 3 Bagnet, J. Clark
 4 Louis, T. Barratt
 5 La Belle Narene, H. Warren
 6 Edgar, L. Hussey
 7 Beauty, J. Clark
 8 Maid of Orleans, J. Robinson
 9 Incomparable, H. Warren

Flamed Bybloemens.

- 1 Bienfait, G. Greaves
 2 Van Amburgh, T. Bullock
 3 Cicero, T. Handford
 4 Lord Vernon, W. Lambert
 5 Lord Denman, ditto
 6 Bacchus, G. Greaves
 7 Violet Wallers, J. Brown
 8 Pyramid, T. Handford
 9 Grand Cid, J. Robinson

Feathered Roses.

- Comte, W. Lambert

- 2 Comte, T. Handford
 3 Lady Crewe, W. Lambert
 4 Heroine, T. Barratt
 5 Catherine, G. Greaves
 6 Walworth, T. Barratt
 7 Dolittle, H. Warren
 8 Hero of the Nile, W. Lambert
 9 Aglaia, T. Handford

Flamed Roses.

- 1 Unique, W. Lambert
 2 Unique, J. Brown
 3 La Vandicken, T. Bullock
 4 Aglaia, J. Greaves
 5 Vesta, G. Greaves
 6 Unknown, T. Bullock
 7 Triomphe Royale, J. Brown
 8 Lord Derby, W. Lambert
 9 Princess Maud, J. Bakewell

Bizarre Breeders.

- 1 Charbonnier, W. Lambert
 2 King, T. Handford
 3 Polyphemus, J. Greaves
 4 Duke of Kent, W. Lambert
 5 Radnor, G. Greaves
 6 Victory, J. Bakewell

Bybloemen Breeders.

- 1 Sancta Sophia, J. Clark
 2 Maid of Orleans, G. Greaves
 3 Clegg's No. 5, W. Lambert
 4 Lord Vernon, H. Warren
 5 Hero G. Greaves
 6 Seedling, W. Lambert

Rose Breeders.

- 1 Gem, G. Greaves
 2 Queen of England, T. Barratt
 3 Lord Derby, ditto
 4 Arlette, G. Greaves
 5 Juliet, ditto
 6 Village Maid, T. Bullock

Selfs.

- 1 Flag, T. Handford
 1 Min d'Or, T. Barratt



SEPTEMBER.

Hunt's Sweetwilliams.

THERE is, perhaps, hardly a flower so capable of being advanced to excellence as the Sweetwilliam. Mr. Hunt, of High Wycombe, a gentleman well known as a patron of whatever tends to encourage the science of floriculture, entered upon the task of improving it, and so successful was he in a few years, that he had obtained many varieties with perfectly smooth edges, dense colour, and fine texture. The serrated edges peculiar to the Sweetwilliam, and indeed to all the dianthus tribe, were got rid of, and the mealy speckled character of the flowers was overcome. Perhaps, as Sweetwilliams are so little understood by many amateurs, it may not be amiss to give Mr. Glenney's standard, as published in his *Properties of Flowers*.

1. The head of bloom should be large.
2. The individual flowers should be round, smooth on the edge, flat on the surface, thick in the petal, and the edges should touch each other, without lapping over.
3. The colour should be pure, free from speckles—if marked, the circles should be well defined.
4. The divisions in the petals should not show, and the foot-stalks of the individual flowers should be long enough to throw them up above the green of the plant itself. There should not be less than nineteen pips or flowers in the truss.
5. The double varieties should in every pip form half a ball, and should stand well out, edge to edge, without lapping over.

Mr. Hunt's Sweetwilliams will, doubtless, be greatly improved, by increase of size in the flower, as well as in the boldness of the truss; but the most difficult portion of the task of improvement is accomplished. Growers have only to follow up that gentleman's

labours, by seeding from the largest. The great merit lay in breaking away from faults that have always previously prevented the Sweetwilliam from being a florists' flower. Unfortunately, however, Mr. Hunt, being averse to trading, gave his Sweetwilliams, improved as they were, into the hands of a nurseryman, who cared but little to go on with the improvement, but realized at once, by selling seed or seedling plants; and even what were sown and retained, were not judiciously chosen, nor was the seed well saved for another year. Instead of destroying the bad flowers, that is, those which had run back, they were allowed to remain, so that it was quite a chance to obtain a bit of really good seed from the collection.

The best plan would be to treat Sweetwilliams like pinks, propagate by slips or pipings. Mr. Hunt's flowers were distinct, and might have been named. Seed might have been saved from the best, and sown, until size and other good qualities had been secured. Such, however, was not the case, and many of the lovers of floriculture have been disappointed by having palmed on them as Hunt's Sweetwilliams, flowers which never deserved the title. Those of our readers who have collections should choose for saving seed only such blooms as have positively smooth edges and no pouncy specks. The Sweetwilliam is yet destined to be a noble flower, and had Mr. Hunt kept on another year or two, and then let out his collection, in named plants, the public would, by this time, have possessed a magnificent show flower. Persons may say what they will, but the man who overcomes the first difficulties in the improvement of a flower deserves all the merit that may follow. The seed of the Sweetwilliam should be sown in rich ground, in June, and planted out, when large enough, where they are to bloom. Any flower not so good as the parent should at once be thrown away, as frequently it would be the means of deteriorating the whole lot, Nature constantly striving to get back to her original state. With care, the Sweetwilliam may be made one of the finest of florists' flowers, and

we are heartily glad to find that Mr. Hunt did not give up its culture and improvement, when he gave up the benefit of all he had accomplished to serve a worthy, but we think rather careless florist. Mr. Hunt has the honour of originating the great improvement in the Sweetwilliam, than which we have no flower more diversified in colour, or in the variety of marking, nor any that promises so extensive a collection.

THE BEST EIGHTEEN

Fuchsias for Exhibitional Purposes.

Admiral Boxer (Smith).—Scarlet tube and sepals, fine deep violet corolla, very attractive.

Autocrat (Banks).—A large dark variety, very much reflexed, free.

Clio (Banks).—Large flower, white tube and sepals, with fine lake corolla, free and good.

Duchess of Lancaster (Henderson).—White waxlike tube and sepals, rosy lilac corolla, large flower, and free bloomer.

Etoile du Nord (Banks).—A finely reflexed variety, with scarlet tube and sepals, and deep violet corolla.

England's Glory (Harrison).—Tube and sepals white, very stout, deep lake corolla, large, strong grower.

Favourite (Banks).—Scarlet tube and sepals, with deep violet corolla, striking variety.

General Williams (Smith).—Bright crimson tube and sepals, well reflexed, violet purple corolla.

Glory (Banks).—Crimson tube and sepals, dark purple corolla. Its only fault is, the corolla fades very much, which is the case with most of the dark varieties. Rather long habit, but very useful.

Little Bo-peep (Banks).—Beautiful reflexed scarlet sepals, large violet corolla, free habit, and very free bloomer.

Miss Hawtry.—Tube and sepals blush white, corolla fine lake, very free bloomer, of good habit.

Pearl of England.—Tube and sepals white, with rosy carmine corolla, good habit and free, good late variety.

Queen of Hanover (Banks).—Pure white tube and sepals, with lively carmine corolla, finely reflexed, and beautiful habit, one of the best light varieties out, if not the best.

Souvenir de Chiswick (Banks).—Rosy crimson tube and sepals, violet corolla, a flower of good quality, reflexes well, and will become a great favourite.

The Fair Oriana (Banks).—Sepals and tube pure white, corolla rosy carmine, sepals nicely reflexed, very free bloomer, and of good habit.

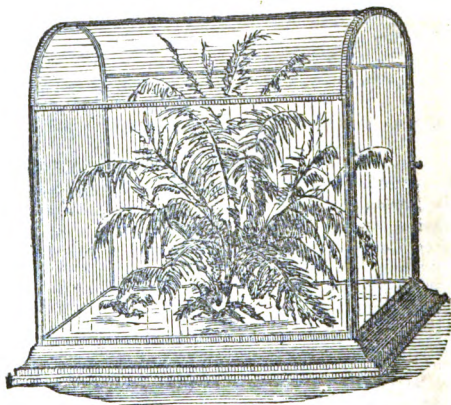
The Little Treasure (Banks).—Bright scarlet tube and sepals, large violet corolla, good habit.

Venus de Medici.—Tube white, sepals blush white, corolla violet blue, good habit, and very free.

Wonderful (Epps).—Crimson well-reflexed tube and sepals, violet purple corolla, very large flower, and makes an excellent late variety.

JOHN DOBSON.

Woodlands Nursery, Isleworth.



Drawing Room Gardening.

FERN cases are now become so fashionable an appendage of the drawing room, that it may not be out of place to give a short detail of their construction and management. The great advantage of the fern case is its forming a miniature conservatory, wherein the beauty of its inmates remains unimpaired by dust and filth. In London and other large towns this is a great desideratum. Their construction is simple; indeed,

they may be made of all shapes and sizes, the only great point being to provide for perfect drainage and the admission of air. The soil box at the bottom should be perforated with a sufficient number of holes, the size of peas, to ensure perfect drainage, and should be constructed to hold six inches of soil. A box must also be provided to receive the drainage water, which must by no means be allowed to touch the soil box, otherwise the soil will be one perpetual mass of mud. In the next number of the *Midland Florist*, I will give a short account of soil, and a select list of such ferns as are best adapted for case cultivation.

LYCOPODIAN.

Planting and Protecting Tulips.

MR. EDITOR,—On perusing your last number, I find an answer, from Mr. Hepworth, to W. M. B.'s communication, in the July number, respecting soil and loss of Tulips. Allow me to make a few remarks on each of these gentlemen's statements. As to culture, after what has been imparted by such really practical men as George Glenney and John Hepworth, I offer no further observations, except that if the inexperienced and those who wish to cultivate the Tulip to perfection, and more especially those who have full stores of superlative strains, would practice what has been so ably written by these two men, they would not fail, whatever the season may be, in having a fine bloom, and healthy bulbs at taking up time.

It would appear, from the statement made by W. M. B., that the grounds of Mr. Hendrie, at Lea Bridge, lie low, are damp and marshy, and of such a texture as to exclude all air. If such be the case, I do not wonder at Mr. H.'s serious loss. About planting time, I know that Mr. H. was in very poor health, owing to severe family bereavement. Such being the

case, planting was delayed till the eleventh hour, the weather proved wet, and frost succeeded. However, planting was finished, although at the time the ground was full of moisture, and no protection was afforded through the severe winter which followed. To this I solely ascribe the destruction of Mr. H.'s Tulips, and not to the soil of Mr. Hendrie's grounds; and here I must say that the statement of W. M. B. savours strongly of prejudice. Had he attributed the loss to late and unfavourable planting, and non-protection, I could have readily agreed with him; but to the ground! No, no! Had the bulbs been kept dry over head, even though they were planted in over moist soil, they would have lived, though the bloom would not have been satisfactory.

No doubt bulbous roots, especially Tulips, when planted under such unfavourable circumstances as detailed, are subject to dropsy. Any person who has studied the culture of plants must be aware that when the atmosphere is surcharged with moisture, or too much water is applied to the roots of plants, it produces an excess of their juices, which resembles the dropsy in animals. In other words, their absorbing action becomes too strong in proportion to the exhalation, and the consequence is a preternatural swelling in particular parts, inducing putrefaction. This decay or dropsy occurs chiefly in bulbous and tuberous plants, such as the *Ranunculus*, which is often found much swollen after rain, and this I most tenaciously hold was the cause of the death of Mr. Hepworth's bulbs. Planted in soaking, oily, muddy soil, heavy rains after planting, no protection afforded until the roots had taken possession of the soil, not even during the whole winter, the consequence was, the heavy rains battered the soil, and made it as close as a plastered wall, the frost congealed the water round the bulbs, no air could penetrate, and of course neither bulbs nor seeds will germinate or make roots in such a state.

The effects of low marshy grounds are the non-ripening of fruits and seeds, and succulent plants are

particularly liable to suffer, from too profuse waterings; and the disease thus created is generally incurable. In this case, the absorption seems too great in proportion to the transpiration, and a soil too richly manured produces similar effects.

After planting my bed, the last week in October (I am no procrastinating chap), I covered the roofing immediately with thin yellow oiled waterproof cloth, and this kept the bulbs and the entire bed dry, from planting time until April, when, if the days were mild, I frequently removed the cloth, and allowed the bed to have warm showers, covering up again, to protect from cold east and north-east winds, hail, and sharp evening and morning frosts. During the whole of the severe winter frosts, I had the entire surface of my bed covered with outside or slab deals, laid over the top of the tallies. When the frost was not so severe, I removed these deals, to admit additional air and sunshine, but took care to replace them in the evening, whether frosty or not; and when I thought all danger was over, I removed the slabs entirely, but, until the heads began to show colour, I did not remove the oil cloth, which admitted sufficient light and sunshine to the bed. This was my simple protection, last winter.

From accounts I have received from the east, and here in the west, one of the most extensive growers had his beds in such a state, that he did not consider the blooms worth shading; they were so damaged by winter and spring frosts as to render his bloom unworthy of notice. In my own bed, I had a most healthy bloom, with the grass strong and vigorous, and the bulbs, when taken up, were well grown, firm, and plump, without the smallest appearance of injury from frost, cancer, dropsy, or any similar disease; and here I have to express my obligation to Mr. Hepworth, for his practical advice, and say to my young friends, follow it as I have done, and you will reap the sweets and taste not of the bitters. Believe not the doctors, when they tell you it is beneficial to health to go naked; both animals and vegetables require protection, more or less.

My garden lies sloping to the south-west, and has all the morning, day, and evening sun, summer and winter. The soil is of a light porous sandy nature, on a substratum of mouldering or decaying rock.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

Good Vegetables.

THE Horticultural Society of London have really come through the season triumphantly, and have, we understand, added nearly two hundred fellows to their numbers, and increased their income nearly six hundred pounds per annum. This is as it should be, and so long as the society is conducted in a really earnest manner, so long will new fellows and increased income be the result. Mr. G. M'Ewen has, this season, been testing the qualities of vegetables, and we append the results of his observations.

BEANS.—Johnson's Wonderful is earliest. Great Britain, Victoria, and Queen of England are good tall sorts, and very similar. Dwarf Cluster and New Royal Cluster are extremely dwarf kinds, neither of them being above eight inches in height. Marshall's prolific is also good.

KIDNEY BEANS.—Six-weeks is the earliest, and Black Speckled is perhaps the next best as a successional cropper.

PEAS.—Dickson's Favourite and Paradise Prolific are good medium late varieties; while the best later sorts are King of the Marrows, Ward's Incomparable, and Flack's Victory. Waterloo Marrow is good, but inferior in colour to Ne-plus-ultra. Lord Raglan and Woodford Marrow are both dwarf and good in colour; but, for flavour and cropping, few will be found to beat Hair's Dwarf Mammoth.

POTATOES.—Lawson's Protestant, a most luxuriant variety. A sort called Myatt's Prolific Ashleaf, is

found to be a better cropper than the old Ashleaf, and, among the early kinds tried here, is one of the best. Early Handsworth is earlier, but it is not so good a cropper as the last. Among kidneys, Thomas's Potato promises to be a very useful variety, and deserves to be better known than it is at present. Newton's Kidney is small and of doubtful quality.

The grand fete will be held at the gardens, on the 8th, 9th, and 10th of June, 1858, and if conducted in the same manner as the last, cannot fail to ensure success.

We may also mention that Mr. M'Ewen has grown Cucumbers in the curvilinear stove, instead of climbing plants. For roof culture or trellises, he has found Great Britain to do well, whilst in the frame it is a poor thing; and out of twenty-four sorts, which he has tried, none excel Cuthill's Black and White Spine, for general supply. Grapes too are receiving attention, and Vines are to be planted for trial.

MR. WALKER

AND HIS

Descriptive Catalogue of Tulips

EXHIBITED AT THE NATIONAL TULIP MEETING, AT MANCHESTER,

MAY, 1857.

WHEN I wrote my remarks upon various new varieties exhibited at the National, I fully anticipated some one would make objections to a portion of them, and I prepared accordingly. There are several persons whose attention I called to certain varieties, that I might have other evidence than my own (knowing that a *clique* were endeavouring to puff off many sorts as first-rate, which could not be classed even as second-rate), and I hope those parties will cheerfully come forward and verify the truthfulness of my statement. I never wrote an article in a *more kindly spirit, or with a greater desire to do justice to all*, and it is painful to me to have to make statements so much at variance with what others think the truth.

Mr. Walker has written a long article, and I will go through the whole of it, and show that he has much to learn before he

can take a place amongst critics. I pass Masterpiece, it being my own, and whatever may be its merits, it has fought its way to the position it now holds: it has had no friendly aid to puff it into notice, like many which have had to take a much lower position than would be assigned them by some parties. His remarks on J. Sanderson I cannot find fault with, as it is at present a great acquisition to the class; but those upon Dr. Horner are totally at variance with facts. What has Dr. Horner to recommend it? Nothing but purity. The petals are narrow, and it soon quarters, and that is damnatory to the character of any Tulip. I pass over the colours, as form, purity, width of petals, and marking are essential to a first-rate variety. I have seen Dr. Horner often, but it never took my fancy, and on one occasion, when viewing the late Mr. Groom's best bed, along with a friend, he fully agreed with me that it was not worth a place in any select collection. I now pass to Gem of Gems, and see no reason to alter a single word; and, during the last few weeks, I have had converse with several parties who agree with my description. It matters not who has bought it; that cannot alter its character. Since the exhibition, I have met with several of Mr. Willison's seedlings, at Denton, and took the trouble to examine them minutely, that no error of description might be made, and I must candidly confess, that I, as well as others, was much surprised that they should have been put so prominently forward. It would have looked much better had Mr. W. have given a full description of these seedlings, and pointed out where I was in error. In describing Gem of Gems, he says fine cup, very pure, rich heavily pencilled flower. Now I say long in the cup, narrow petals, and pure, and if I had added rather disposed to be pointed at the top of the petals, I should not have erred. As to its good marking, there can be no dispute, but that is only one property, although with many it is apt to hide great defects. Duchess of Sutherland has been out some time, and I agree with Mr. Walker that it is very good; in fact, I consider it the best flamed bybloemen out. It was raised by Mr. Walker, of London, who also raised Coronation. Miss Porter and Miss Groom are the same, and I again affirm that it is *greasy*. Lachesis would one might have thought, have been recognized as La Belle Nanette; but, although I am of opinion that it is a genuine seedling, yet it is so like what I consider the parent, Triomphe Royale feathered, that it cannot be shown as a different variety. Mr. W. again has a fling at Willison's Queen. Apparently he is ignorant that it has been out some time, and had been previously noticed in the *Midland Florist*, and it is needless to repeat what is well known. I disputed the purity of Juliet the first time it was exhibited, and the next year it was acknowledged that I was right. Lord Derby also is not strictly pure. Duchess of Sutherland, ex. fine form and pure. I should have thought that a person who professes to write a descriptive catalogue would have been

aware that Gibbons's Duchess of Sutherland, *alias* Midland Beauty, is a rose breeder, and breaks into neither rose nor byblømen, but is, nevertheless, a fine marking variety, and worthy a place in any collection, and that this one under that name is one of the Chellastons in a wrong name. Industry is dragged into notice by Mr. W., and as he says that it is worth inquiring after, I say that he is ignorant of what he attempts to describe. Now it so happens that this breeder has been praised as the best out, and having an opportunity of seeing it at Manchester for the first time, my attention was drawn to this *clipper*, and behold, it would not bear the slightest comparison with Mrs. Lea. The petals are narrow, and the cup much longer than Mrs. Lea, which Mr. W. admits is rather long; and, as I before stated, long cups and narrow petals cannot be tolerated now that so many good sterling breeders are coming every year into notice. Queen of England is put down as ex. ex. ex. fine, of great substance, good form, and pure, but he omits to state that the three inside petals do not clip close, but stand loose, like General Barneveldt. I have briefly noticed a few, and I request the readers of the *Midland Florist* to compare my descriptions with those of Mr. W., and they will find that in the majority of instances he proves the correctness of my notes, and I think credit ought to be given me for the others, seeing that we differ principally in Mr. Willison's seedlings, but I hope some other florists will take the matter up, and publish opinions which they have privately expressed. Many imperfections in his seedlings were pointed out to Mr. Willison personally, by a friend of mine, who, like myself, was much disappointed in those brought to the National, expecting, after such a flourish, to see something extra, and if they had been so, I should have felt great pleasure in noticing them as such.

Mr. Walker has been extremely partial in his remarks, and I charge him with having written his descriptive list to serve private purposes, or why omit several first-class breeders, and notice many that were only secondary? Amongst the former, may be enumerated, in the second winning stand of six, Charles Albert, a bizarre, allowed by competent judges to be one of the finest bizarre breeders in cultivation; Leander, a byblømen; and Earl of Warwick. In the fifth pan, Lord Valentia, byblømen, and P 2, bizarre. In the sixth pan of three, Luke Ashmole's Seedling Bizarre. In the fourth pan of six, Willison's Superba, a byblømen, good. Could he not see Agnes Strickland, a rose breeder, a perfect model as to cup and purity, and which was noticed in a report of the Manchester and South Lancashire Amateur Tulip Society's exhibition, held in 1856, as well as Tintoretti? And again, in the broken flowers, Tintoretti, Sophonisba, and a few others. Mr. W.'s eyes were enveloped in a mist, and so contracted that he could only see certain flowers in certain stands. As another proof of my correctness,

I may mention that a gentleman, whose knowledge of the Tulip is not surpassed, made notes, which, upon comparison, some weeks afterwards, were found so similar to mine, that they might have been copied from my book. This is not the first time I have been thus treated, but truth will prevail in the end, and I again repeat that I only wish that several friends would take the matter up, and publish their notes, that it might be seen which is the most truthful, Mr. W. or myself.

As Mr. W. has taken upon himself a new office, let me advise him to show no respect to either persons or flowers, but to do his duty honestly and fearlessly, and then the best out will really have a chance. Instead of having a grain or two in a bushel of chaff, the chaff will be driven away, and we shall have nothing but grain.

JOHN SLATER.

Cheetham Hill, near Manchester.

Showing of Dahlias.

NOTWITHSTANDING all that has been written on this subject, in the *Horticultural Journal and Gardeners' Gazette*, and twenty years almanacks, it tells but little on exhibitors, who often lose two or three points by a bad choice of flowers and a still worse arrangement. We ought to refer people to those works, instead of so often repeating what every grower ought "to know by heart." Without, however, repeating our lessons *in extenso*, we will repeat the principal hints, and leave our readers to profit by them as far as they can, and turn to the works in question for further information. First, then, we recommend young exhibitors to cut the flowers that are most perfect, that is to say, with centres as full up and outlines as fine as they can find them, without regard to colour or size. Of course, among these there will be some large, some middling, and some even less than middling, therefore the next thing is to divide them into the three sizes. Beginning then with the largest that are perfect, they must begin with the back row. If they can, they should put the best two light ones at the top corners, and the best two dark ones next to them, working towards the centre. The

next two must be the next best light ones they can produce, and the next best dark ones in the centre. They may then look to the middle row size, and put the best two dark ones at the two ends, under the two top corners; two light ones next, under the top dark ones; then two other dark and two light ones in the centre. The bottom row is done after the plan of the top, and when these are all arranged, look among the spare flowers, to see if any are better than you have already placed, but be careful that you have no duplicates, because two of one sort disqualifies the stand. It is just possible that you may be deficient of light or dark flowers, and unable to carry out the plan to your liking. In this case, see if you can mend matters by putting larger flowers in the second or third row, instead of carrying out the three sizes complete, remembering the four corners are always the more striking when light. Again, it may be that light flowers are scarce: you must then substitute the brightest. Now whites, edged flowers, lilacs and yellows, and even orange colours, may be fairly used as light. Next to these, bright scarlet may be so appropriated; but purples are all dark, and heavy crimsons; and even when a majority of dark flowers prevent us from doing as we wish, still a great deal may be done by uniformity of arrangement, not to have two dark ones together, except in the centre, nor two light ones. When they all run too much of one character, there will be shades of difference to enable us to do something towards uniformity. A stand of twelve must be done in the same way, keeping the outsides, in the top and bottom rows, as light as we can, and the centres as dark as we can, and the middle row reversed. We are quite sure that uniformity in a stand is a strong point in its favour, and judges, if they do their duty, are bound to notice it so far that when two stands are equal in other respects, the stand properly arranged should have the benefit. Simple as this may seem, let any one go over a number of stands, in an extensive show, and he will see more than half of them set up without the slightest attempt

at arrangement, and many a stand of really good flowers spoiled by a total disregard to any kind of contrast,—one end of the stand, perhaps, with nearly all dark, and the other light, or otherwise the effect spoiled by a bad disposition of the flowers.

GEORGE GLENNY.

The Tulip Question.

A CORRESPONDENT writes, I have lost many of my Tulips, and should really like to know the cause. What else can it be but frost? My beds are well drained, three feet below the bulbs, and this season, my loss is very great. I can only say, from my own observation, that Mr. Hepworth's blooms were as bad as my own, while in the same grounds, Mr. Dunn's bed, which had received protection, were healthy and fine. As a proof that frost is the cause, I had one bed well protected, and four others, one of which was my best bed, without protection. At the beginning of March, my plants were all wonderfully strong and fine, promising a good bloom, but, all of a sudden, those on the unprotected beds were affected like the haulm of the potato, when attacked by disease, while those on the protected bed remained good and clean, but, unfortunately, they happened not to be my best bulbs.

Another correspondent, not at all connected with the Lea Bridge gardens, says, my bed was healthy and all right, up to the severe storm on Easter Monday, when the plants began to show signs of decay, and I never had a worse lot.

A Manchester grower writes, my Tulips were planted late, without much particular care, in beds nearly unprepared, and I never had a better bloom, nor more healthy bulbs in general. Certainly they are rather small, but, with few exceptions, healthy. My situation is very open, and the soil rather retentive.

There is great mystery in this Tulip question. We invite discussion on the subject, but that discussion must not be wrangling, but a simple statement of facts, to enable florists to judge of the cause of the Tulip failure this season, and avoid it, if possible, in future.

In answer to Mr. Hepworth's letter, in your last number, I beg to state, that I still maintain, that the soil at Lea Bridge Gardens will not suit Tulips, unless a very great deal of new stuff is got in every year. Mr. Hepworth may say what he likes about it,—he has an interest in the gardens, and it is his duty to do so,—but I would advise none of my friends to grow Tulips there, without they want to get rid of their collections, and I think they would not be long in doing that. Mr. Hepworth says in his letter that he is going to show how Tulips ought and are to be grown at Lea Bridge. I should be very glad to see Mr. Hepworth's Tulips as I have seen them, for I do not doubt but that he knows how to grow them as well as any man; but he must bear in mind the poisonous nature to Tulips of the soil, at Lea Bridge. If he grow them in the same garden as last year, I think he is too good a general to grow them in the same soil. If he use soil that has not grown Tulips before, he may have a decent bloom; but I am afraid his bulbs, like many more on the same ground, are so impregnated with the poisonous matter, that it will take all Mr. Hepworth's knowledge, and that is not a little, to get it out again, if he continue to grow them there. I would not have troubled you, Mr. Editor, with this letter, but that Mr. Hepworth mentions my name in his communication; and, as I have not seen my letter in the *Midland Florist*, it certainly must be in his possession, or he could not have referred to it. Wishing Mr. Hepworth and all others every success, I am,

AN EAST-ENDER.

London, August 18, 1857.

We beg to assure "An East-ender," that neither his letter, nor any copy thereof, was ever seen by

Mr. Hepworth. All the means that Mr. H. had of knowing that "An East-ender" had written, are to be found in the note, at page 248. We most distinctly repudiate the insinuation that we forwarded the letter to Mr. H. It has never been out of our possession.—ED.

A few Hints on growing Hyacinths,

WITH

A LIST OF THE BEST VARIETIES.

THE season for potting, and putting Hyacinths in glasses, being near at hand, we could hardly select a better time for advising, and giving a few remarks on their cultivation. It will be universally admitted that most of the Dutch bulbs are necessary for decoration, throughout the winter months. Few classes of plants can boast of such varied colours as the Hyacinth, and its fragrance is scarcely surpassed by the more rare and beautiful exotics. The Narcissus, Jonquils, and Tulips are also necessary for the contrast of colours, and to give variety in foliage. They all require the same treatment, and few plants require less skill in growing them, and yet, in a majority of cases, they are badly done. One great thing to guard against is excess of moisture to the bulbs. The mode of treatment we pursue is very simple. About the middle of September, we select healthy-looking bulbs, and prepare the mould,—three parts rather stiff yellow loam, and one part river sand and well-rotted manure from an old hotbed. This is well chopped (not sifted) and mixed together, and a little silver sand is also added. Forty-eight or thirty-two-sized pots are used, forming drainage with about an inch of broken pots. The pots are then three parts filled with the mould, and a little river sand is laid on the top, where the bulb is to be placed. The bulb is then put on the sand, and pressed, and sand is put round it till only the crown is visible. The pot is

then filled up with the mould, and water administered. Any corner will do for them to stand in, and when they are placed, they must be covered with about three inches of sifted ashes. This will enable them to make their roots first, which is very essential to their after well-doing. They will require but little care, for a few weeks. As soon as the pots are full of roots, they may be taken out of the ashes, placed in a frame, and exposed to the light and air, but they must be protected from frost, otherwise they will turn brown at the points of the leaves, and perhaps the flowers also. If planted in beds, of course this will not be the case, as they are then perfectly hardy; but being closely confined in the ashes, encourages a tender growth, which takes a little time to recover. When growing, a little manure water is beneficial. They must be brought into flower gradually at first. Many persons spoil the bloom by too great an anxiety to have them in flower early. This remark applies equally to bulbs in glasses. From this cause, one-half the bulbs do not succeed as they would, if brought on gradually, and then the seller is accused of supplying bad bulbs, while all the time the fault is with the grower. To grow them successfully in glasses, the following treatment is necessary. The glasses procured, see that they are well washed, and fill them with rain water, to within an eighth of an inch of the bulb. Place them in a dark situation, as it is also necessary that they should form their roots before making growth. As soon as the glasses appear full of roots, remove them to the light. Upon the subject of often changing the water, there exists great difference of opinion. We never change the water, from the time the bulbs are put into the glasses till they have done flowering, and have always succeeded in getting large spikes of well-coloured bloom, without applying manure water, or any other stimulant. If the foregoing remarks are attended to, success will be certain; and although they may contain no new ideas, yet they may serve to remind many, and be the means of some reader being successful who has hitherto been the

reverse. The following sorts, which may be had at a moderate price, can be highly recommended.

HYACINTHS FOR GROWING IN POTS.

DOUBLE RED.		
Alida Catharina		Madame Zoutman
Bouquet Tendre		Rex Rubrorum
Comtesse de la Coste		Rose Sceptre
DOUBLE WHITE.		
Bride of Abydos		Miss Kitty
Grande Monarque		Pyrene
Jeannette		Sultan Achmet
DOUBLE BLUE.		
Blocksberg		Comte de St. Priest
Blue Fonce		Envoye
Bonaparte		Grande Vidette
DOUBLE YELLOW.		
Bouquet Orange	Duc de Berri	Heroine
SINGLE RED.		
Appelius		Homerus
Bouquet Triumphant		Lord Wellington
Dielitsch Sabalskansky		Mars
SINGLE BLUE.		
Appius		Grande Vidette
Baron von Tuyll		Keizer Ferdinand
Camper		Nimrod
SINGLE WHITE.		
Grande Blanche Imperial		Hannah Moore
Grande Vainqueur		Rousseau
La Candeur		Voltaire
SINGLE BLACK.		
Belle Africani	Quentin Durward	William I.
SINGLE YELLOW.		
King of Holland	Pluie d'Or	Prince of Orange

HYACINTHS FOR GLASSES.

DOUBLE RED.	
Comte de la Coste	Maria Louise
Grootvorst	Perruque Royale
Lord Wellington	Waterloo
DOUBLE BLUE.	
Crown of India	Laurens Koster
Grand Vidette	Mignon de Dryfhout
King of the Netherlands	Passetout

DOUBLE WHITE.	
Anna Maria	Prince of Waterloo
Bucentaurus	Pyrene
Don Gratuit	Triumph Blandiana

SINGLE RED.	
Bouquet Triumphant	Lord Wellington
Diebitsch Sabalskansky	Mars
L'Ornement de la Nature	Paix d'Amiens

SINGLE WHITE.	
Grande Vainqueur	Premier Noble
Madame de Stael	Talleyrand

	SINGLE BLUE.	
Emicus	Lord Grey	Nimrod
Haller	Lord Nelson	Pronkjuwell

SINGLE BLACK.		
Madame Coster	Prince Albert	Vulcan

The single varieties have most perfume.

JOHN DOBSON.

Woodlands Nursery, Isleworth.

Select List of Standard Show Pansies.

PRESUMING that a list of Pansies, possessing the essential qualities of good show flowers, would be interesting at this Pansy planting season, I have, from my collection, which is, perhaps, the most select and extensive in the kingdom, chosen the following varieties, which I am justified in saying are the best in cultivation.

WHITE SELFS.

In this class, there is as yet nothing approaching perfection. The best, however, are,

Glory (Hampton)	*White Perfection (Hooper)
Alba Magna (Thompson)	

YELLOW SELFS.

*Yellow Model (Hooper)	*Chromentilla (Syme & Middlemas)
*Bessie (Hooper)	Mrs. Dodwell (Fisher)

The first three of these are extra fine varieties, while the last is a strikingly showy variety, but defective in form.

DARK SELFS.

These are too numerous. I bought nine new varieties, only three of which are worth growing, namely.

- | | |
|--------------------------|-------------------------|
| *Dred (Syme & Middlemas) | *Black Bess (Kimberley) |
| Malakoff (Kimberley) | |

The first is ex. ex. and very distinct. Of the older varieties, the following are all first-class show flowers.

- | | |
|--------------------------|------------------------------|
| Gem (Grandison) | J. B. Gough (Downie & Laird) |
| Jeannie (Downie & Laird) | Duke of Sutherland (Tunley) |

YELLOW GROUNDS.

These are also numerous, but the beauty and brightness of their lovely faces neutralize their monotony of shade.

- *Prince Albert (Holland), extra fine.
- *Duchess of Wellington (Downie & Laird). This would be the first in its class, were it not for two shades of colour in the yellow shield.
- *Orestes (Hooper), fine.
- *Napoleon (Hooper), fine.
- *Refinement, (Schofield) ex. ex.
- *General Williams (Schofield), ex. ex.
- *Colonel Wyndham (White & Sinclair), ex. ex.
- *Napoleon (Dickson & Co.), fine
- *Champion (Kimberley), ex. fine.
- *William (Read), ex. fine.
- Cyrus (Dickson & Co.), ex. ex.
- Alice (Downie & Laird), ex. ex.

WHITE GROUNDS.

This class is now very rich. The best varieties are,

- *Countess of Rosslin (Laing), A 1.
- *Louisa (Read), ex. fine.
- *Una (Downie & Laird), a gem.
- *Rebecca (Syme & Middlemas), fine.
- Beauty (Downie & Laird), ex. ex.
- Sir Colin Campbell (Paton & Small), ex. fine.
- *Robin Adair (Hooper), fine.
- Sir E. Lyons (Hooper), fine.
- *Miss Lightbody (Campbell), ex. fine.
- *Abbotsford (Campbell), fine.
- *Eugenie (Dickson & Co.), distinct and fine.
- *Colonel Wyndham (Laing), ex. fine.
- *Miss White (Sinclair), very fine.
- Royal Standard (Dickson & Co.), very fine.
- Constancy (Syme & Middlemas), fine.

Nonpareil (Dickson & Co.), fine.

Royal Visit (Dickson & Co.), ex. fine.

*Alliance (White & Sinclair), fine.

Others might be added, possessing, perhaps, equal merit with some I have already named; but these are distinct, and sufficient for any amateur's selection, and I am satisfied that twenty-four ordinary bloomed specimens of the above, selected indiscriminately, would beat any other twenty-four varieties at present in cultivation. I have marked with an asterisk those sorts let out last spring or autumn.

R. R. OSWALD.

Adderley Gardens, Birmingham, August, 1857.

Moirs Floral Exhibition.

To us, Moirs seemed one of the last places in the world where a floricultural exhibition would answer. Yet we must say that we were most agreeably surprized. The exhibition was held on the 5th of August, the specimens were arranged in eight large marquees, and the field was a scene of festivity and gaiety. The band of Mr. Nicholson, and that of the South Staffordshire Militia, enlivened the company with their strains. The arrangement of the flowers was not good. In many instances, a row of vegetables, not far from two feet deep, was placed in front of the flowers, throwing them so far back, that they were seen with difficulty by the visiter. Perhaps, too, next season, if the Hollyhocks and Dahlias were put altogether, it would greatly facilitate the judgment. There were something like ten thousand persons present, among whom were the leading gentry of the vicinity. Seldom have we seen bouquets so fine as on this occasion. There were also some pretty devices in flowers, on one of which was incised,

"Who can paint
Like Nature? Can Imagination boast,
Amid her gay creation, hues like these?"

The exhibition was divided into four classes, the first of which was for colliers, and the flowers and other productions in this class were indeed highly creditable. The second class included plants and flowers, fruit and vegetables, exhibited by cottagers, not being colliers. The third class was for amateurs. The Carnations and Picotees were very good. The following were the awards:—

CARNATIONS.

Twelve Blooms.—1. Mr. Fisher, with Lorenzo, Sarah Payne, King of Carnations, Lovely Ann, Black Diamond, Milton, Lord Goderich, Admiral Curzon, Sportsman, Premier, Admiral Curzon, Willford. 2. Mr. Parkinson, with Premier, Black Diamond, Aglaia, Squire Meynell, Lord Milton, Mayor of Oldham, Hartley's Seedling, Premier, Admiral Curzon, Captain Franklin, Squire Meynell, Admiral Curzon. 3. Mr. Hextall, with Sportsman, Sir Joseph Paxton, King John, Lord Lewisham, Black Diamond, Exit, Sir Joseph Paxton, Victoria Regina, Firebrand, Black Diamond, Squire Meynell, Mr. Ainsworth. 4. Mr. Thompson. 5. Not awarded.

PICOTEES.

Twelve Blooms.—1. Mr. J. Walton, Derby, with Mrs. Barnard, Green's Queen, Amy Robsart, Mrs. Turner, Mrs. Bayley, Mrs. Norman, Miss Holbeck, Alfred, Amy Robsart, Mrs. Bayley, Mrs. Lochner, Miss Holbeck. 2. Mr. Fisher, Mickleover, with Mrs. Bayley, Mrs. Turner, Green's Queen, Amy Robsart, Venus, Green's Queen, Mrs. Turner, Eugenia, Mrs. Barnard, Venus, Mrs. Dodwell, Alfred. 3. Mr. Parkinson, Derby, with Green's Queen, Duke of Rutland, Mrs. Norman, Mrs. Barnard, Haidee, Alfred, Mrs. Bayley, Duke of Rutland, Alfred, Amy Robsart, Venus, Amy Robsart. 4. Mr. Hextall, Ashby-de-la-Zouch, with Florence Nightingale, Mrs. Bayley, Princess Royal, Mrs. Lochner, Mrs. Hoyle, Mrs. Kelke, Mrs. Bayley, Mrs. Turner, Evelyn, Dr. Pitman, Amy Robsart, Lady Howe. 5. Not awarded.

Roses, Dahlias, Hollyhocks, Pansies, Sweetwilliams, and Antirrhinums were also exhibited in good style, although we observed nothing new. Fruits and vegetables too, were good.

The fourth class was for gentlemen's gardeners and nurserymen. Greenhouse and stove specimens were good, considering the season.

ROSES.

Twelve Blooms.—1. Mr. Cranston, Hereford. 2. Mr. Evans. 3. Mr. Taylor, Nottingham.

Six Blooms.—1. Mr. Cranston. 2. Mr. Goodwin. 3. Mr. Evans. 4. Mr. Taylor. 5. Mr. Wright.

HOLLYHOCKS.

Six Spikes.—1. Mr. Evans. 2. Mr. Cooling. 3. Mr. Taylor. 4. Mr. Baker. 5. Mr. Gardiner.

Twelve Blooms.—1. Mr. Cranston, with Comet, Alexander, Agricola, Alexander, Hon. Mrs. Ashley, Poupre de Tyre, Lady C. Melville, Lady Middleton, Poupre de Tyre, Lizzy, Pearl, Agricola, 2. Mr. Draycott. 3. Mr. Evans. 4. Mr. Taylor.

DAHLIAS.

Twelve Blooms.—1. Mr. Draycott. 2. Mr. Taylor. 3. Mr. Walker. 4. Mr. Baker.

Six Blooms.—1. Mr. Draycott. 2. Mr. Wright. 3. Mr. Taylor. 4. Mr. Elliott.

VERBENAS.

Twelve Blooms.—1. Mr. Walker. 2. Mr. Draycott. 3. Mr. Henderson.

Twenty-four Blooms (Extra Prize of 10s.)—Mr. Cooling.

CUT FLOWERS.—1. Mr. Taylor.

BOUQUETS.—1. Mr. Cooling. 2. Mr. Walker. 3. Mr. Scott.

CARNATIONS.

Twelve Blooms.—1. Mr. Bayley, with Friar Lawrence, Hope, Lovely Ann, Sarah Payne, Black Diamond, Squire Meynell, Ivanhoe, Premier, Mr. Ainsworth, Ariel, Black Diamond, Admiral Curzon.

Six Blooms.—1. Mr. Bayley, with Omar Pacha, Lorenzo, Black Diamond, Martin's Splendid, Premier, Sportsman.—2. Mr. Saxelby.

PICOTEES.

Twelve Blooms.—1. Mr. Bayley, with Mrs. Norman, Green's Queen, Mrs. Barnard, Mrs. Bayley, Amy Robsart, Mrs. Bayley, Mrs. Lochner, Mrs. Dodwell, Venus, Mrs. Dodwell, Miss Holbeck, Alice. 2. Mr. Saxelby.

Six Blooms.—1. Mr. Bayley, with Sultana, Green's Queen, Mrs. Turner, Mrs. Bayley, Miss Holbeck, Amy Robsart. 2. Mr. Saxelby.

Fruit was also good, especially Pines and Grapes. Prizes were also awarded to cottagers, for their gardens. Altogether, the exhibition at Moira deserves great praise, and is worthy of the patronage of every well-wisher of floriculture.

Midland Horticultural Society.

THE members of this society held their second exhibition at the Arboretum, Derby, on the 12th of August, when a numerous and fashionable company were present. Great Britain and Walker's White Spine Cucumbers were fine, as were also Jackson's Seedling Kidney Potatoes, Onions, Celery, and Champion Peas, among the vegetables. Some dessert Apples, exhibited by Mr. Parker, were good. There was also a plate of

Dessert Apples exhibited as American Summerings, but they were not that variety. The Peaches and Pines were also good. The first prize for grapes was awarded for Alexandrina Muscats, while the Cannon Hall Muscats, although much larger, were not awarded a prize at all. We do not mean this as finding fault with the judgment. We never tasted either of them.

ROSES.

1. Mr. Cranston, with Louise Peronny, Souvenir de la Malmaison, Madame de Cambaceres, Souchet, Souvenir de la Reine d'Angleterre, Madame Ducher, General Jacqueminot, Nina, Narcisse, Alexandrine Bachinetteff, Auguste Mie, Dr. Leprestre, Duchess of Norfolk, Comte de Paris, Gloire de Dijon, Louis Odier, Devoniansis, Prince Leon, Mrs. Bosanquet, La Reine, Vicomtesse de Cases, Geant des Batailles, Adam, Josephine, and Emperor Napoleon.

Carnations and Picotees were also exhibited very good.

CARNATIONS.

1. Mr. Dodwell, with Ivanhoe, Lord Milton, Lovely Ann, seedling, Squire Meynell, Mr. Bayley, Black Diamond, Lorenzo, Sir J. Paxton, Admiral Curzon. 2. Mr. Bayley, with Sir J. Paxton, Lorenzo, Black Diamond, Squire Meynell, Young Milton, Friar Lawrence, Count Pauline, Ariel, Lord Milton, Hartley's seedling.

PICOTEES.

1. Mr. Dodwell, with Duke of Rutland, Green's Queen, Mrs. Bayley, Mrs. Turner, Lauretta, Mrs. Bayley, Ada, Mary, Alfred, Mrs. Hoyle, Venus, Amy Robsart, Alice. 2. Mr. Bayley, Meg Merrilies, Green's Queen, Miss Bayley, Prince of Wales, Mrs. Lochuer, Mrs. Barnard, Mr. Dodwell, Venus, Amy Robsart, Alfred.

Best Picotee.—Mr. Bayley, with Mrs. Bayley.

Among plants, Achimenes longiflora, major, and venusta, Petunia Alcibiades (crimson-striped), and Verbenas Mrs. Lamb and Lady Palmerston, were all good. The first prize for twelve Verbenas was awarded to Mr. Cooling, and the second to Mr. Small, Ilkeston. With forty-eight Hollyhocks, Mr. Small was first, and Mr. Taylor second; and with twelve ditto Mr. Cranston was first. A pretty device, "Success to the Society," was also exhibited.

With Dahlias, our old friend, Richard Edwards, of Nuthall, came out in good style, exhibiting three pans of twenty-fours. Of course, only one of them was for competition.

DAHLIAS.

1. Richard Edwards, with Agincourt, Yellow Beauty, Richard Cobden, seedling (white, raised by J. Richards, Esq., Basford Cottage, a very pretty thing), Sir Chas. Napier, Amazon, Duke of Wellington,

Dr. Gully, Standard Bearer, Scarlet King, Lord Bath, Princess Charlotte, Emperor, Duchess of Wellington, Lollipop, Pandora, Captain Ingram, Mrs. Wheeler, Edward (1857), seedling (yellow), Eleanor (1857), Royal Scarlet (1857), Sir F. Bathurst, Col. Wyndham.

The best blooms in the pans not for competition were, Charles Perry, Empereur de Maroc, Rachel Rawlings, Cossack, Pigeon, Triomphe de Roubaix, Eugenie, Comet, Magnificent, John Keynes, Fanny Keynes, Miss Frampton, Lady Franklin, Topsy, Imperatrice Eugenie, Admiration.

And now, before we close our remarks on the Derby show, we would say one word to the secretary. In our last year's report, we said that "Mr. Turner's Dahlias were far behind what they ought to have been," and that twenty-four might have been cut several times over, near Nottingham, that would have far eclipsed them; and that as there was only one prize, some way or other the growers had got the idea, and fondled it, till they thought the prize was meant for one man. To this, the executive replied by a sort of challenge, that Mr. Turner would show against those persons who could have cut these blooms, for any sum. Of course we anticipated seeing these famous blooms at this exhibition. Why they were not there, we cannot say; but, from the success of the Nottingham growers, both dealers and amateurs, at Derby and Burton, we augur well for the result. We were not so silly as to accept the challenge, but we quite expected at the least to see Mr. Turner's character upheld at Derby.

Burton-on-Trent Floral Exhibition.

THE world-wide fame of its bitter beer, renders the name of Burton quite familiar with almost every one. The members of the horticultural society connected with this town held their second exhibition, on Wednesday August 19, in tents, erected for the occasion, in a large and spacious field, and certainly a very good exhibition it was. The Balsams from Bretby were

SEPTEMBER—VOL. XI. 2 F

indeed patterns of perfection. Gloxinias Empress Eugenie, Mars cœrulens, Rosea mutabilis, and Smith's Seedling were good; as were also Achimenes Ambroise Verschaffelt, Longiflora rosea, Longiflora, and Sir Trehern Thomas. Some nice greenhouse specimens, Calathea zebrina, Dracæna terminalis, Plectranthus concolor picta, and Croton variegata, were exhibited.

Apples, Nectarines, Apricots, Peaches, and Elruge Nectarines, also afforded a good display. Amongst the vegetables, Brighton Cos Lettuce, Drumhead Lettuce, Manchester Red Celery, and Onions were very good.

Mr. Draycott, of Humberstone, was first with twelve and eighteen Roses, and Mr. Goodwin was second. In Dahlias, Mr. Richard Edwards, of Nuthall, came first, and Mr. C. Leicester, Macclesfield, second. Mr. Draycott and ourselves also showed pans. In twenty-four fancies, Mr. Edwards was again first, and we came second. Mr. Draycott also exhibited, but only two prizes were awarded. Considering the season, perhaps there never was a better display of Dahlias in the midland counties, many of the blooms being almost perfection. We append a list of the awards.

DAHLIAS.

1. Mr. R. Edwards, Nuthall (dealer), with Edward, Butterfly, Amazon, Fanny (Dodds), John Keynes, Lord Bathurst, Rachel Rawlings, Lord Bath, Mrs. Wheeler, Agincourt, Dr. Gully, Magnet, Lilac King, Empress, Lord Cardigan, Ada, Mr. Selden, Ringleader, Perfection, Colonel Wyndham, Eleanor, Duke of Wellington, Capt. Ingram, Loveliness. 2. Mr. C. Leicester, Macclesfield (dealer), with Duke of Wellington, Mrs. Edwards, Lady Popham, Black Diamond, Victory, Pre-eminent, Beauty of Slough, Agincourt, Lady Franklin, Violet Perfection, Rachel Rawlings, Lord Palmerston, Perfection, Captain Ingram, Marchioness of Cornwallis, Duchess, Conqueror, Mr. Selden, Louisa Glenney, Mrs. Wheeler, Dr. Gully, Admiral, Empress, Archbishop of Caaterbury.

FANCY DAHLIAS.

Twenty-four Blooms.—1. Mr. R. Edwards, Nuthall (dealer), with Comet, Empereur de Maroc, Triomphe de Roubaix, Princess Charlotte, Eugenie, Margaret, Empereur de Maroc, Carnation, seedling, Spectabilis, Sir S. Herbert, Duchess of Kent, seedling, Miss Frampton, Lady Franklin, seedling, Miss Frampton, seedling, Admiration, Pigeon, Imperatrice Eugenie, seedling, Miss Frampton, and Topsy. 2. Mr. Alfred G. Sutton, Radford Grove, Notts. (amateur), seedling, Topsy, Triomphe de Roubaix, Baron Alderson, Duchess of Kent, seedling, Mrs. Padley, Spectabilis, seedling, Eugenie, Imperatrice Eugenie, seedling, Margaret, Pigeon, Miss Frampton, Princess Charlotte, Coquette, seedling, Triomphe de Roubaix, Empereur de Maroc, and Carnation.

The whole proceedings passed off in the most satisfactory manner, great praise being due to Mr. Meakin, Mr. Dunwell, Mr. Paul, and the whole of the members of the committee. A fine brass band, from Birmingham, was in attendance, and enlivened the scene with a selection of beautiful music.

National Carnation and Picotee Exhibition.

THE annual meeting of this society took place at the Manchester Botanical Gardens, on Wednesday, the 19th of August, and, notwithstanding the season was fourteen days earlier, there was a good display of blooms, rather above the average in quality, as respects marking, but inferior in size, as they were nearly all from laterals. There were thirty-four subscribers and twenty-five exhibitors. The number of pans of twelve Carnations was eleven, and the same of twelve Picotees. There were only ten pans of six Carnations and six Picotees. In classes, forty-eight scarlet bizarres, seventy-eight crimson bizarres, seventy-four scarlet flakes, eighty-four rose flakes, and forty-eight purple flakes. Forty-four heavy-edged purple Picotees, twenty-nine light-edged purple, twenty-four heavy-edged red, twenty-two light-edged red, nineteen heavy-edged rose, and twenty-eight light-edged rose. Total number of blooms, eight hundred and seventy-seven. Amongst the novelties, was a light-edged red Picotee, named Lauretta, exhibited by Mr. Smith, of Darlington, which took the first prize, in class showing, and was deservedly rewarded with a first-class certificate. Mr. Smith also took the first prize with a heavy rose Picotee (No. 19); but this is rather a coarse variety, and it is yet to be seen whether it will, by different treatment, become a favourite. Eva, a light rose Picotee, by the same raiser, is a very promising variety. Rhodes's Lady Rhodes is a brilliant scarlet flake, but, as shown, the

white might be improved a little. Brown's Lady Curzon, also a scarlet flake, was rather rough on the edges, and had too many little stripes of colour in the petals. Mrs. Crowe (Jackson), light-edged rose Picotee, was shown in very good style. Slater's Warrior, crimson bizarre, was shown in fine style, and was in every winning pan of twelve, and took the second prize in class. The prizes were awarded as follows:—

Class A, CARNATIONS, Twelve Dissimilar Blooms, open to all.—1. J. O. Openshaw, Esq., Bury, with Slater's Warrior, Saladin, Squire Meynell, Mrs. Ainsworth, Queen Victoria, Kay's Splendour, Puxley's Jenny Lind, Admiral Curzon, Lovely Ann, Rhodes's Lady Rhodes, and Lord Milton. 2. Mr. Robert Hall, Middleton, Captain Edwards, Lady Ely, Puxley's Jenny Lind, Slater's Warrior, Mr. Ainsworth, Kay's Splendour, Lee's Jenny Lind, Lovely Ann, Duke of Devonshire, Uncle Tom, Duke of York, Lady Peel, and Black Diamond. 3. James Whitehead, Oldham, Admiral Curzon, Brown's Lady Curzon, Squire Meynell, Lady Gardiner, Puxley's Jenny Lind, Earl of Wilton, Sportsman, Slater's Warrior, Firebrand, Poor Tom, Black Diamond, and Lovely Ann. 4. Colonel Lee, Bagslote, Slater's Warrior, William IV., Ariel, Admiral Curzon, Bellerophon, Lady Gardiner, Earl of Wilton, Lord Milton, Lovely Ann, Mr. Ainsworth, Black Diamond, and Jenny Lind. 5. R. W. Foster, Esq., Todmorden, Lovely Ann, William IV., Jenny Lind, Admiral Curzon, Sportsman, Lord Milton, Slater's Warrior, Mr. Ainsworth, Kay's Splendour, Earl of Wilton, Lady Gardiner, and Captain Edwards. 6. Mr. Samuel Yardley, Oldham, Mr. Ainsworth, Jenny Lind, Admiral Curzon, Lovely Ann, Uncle Tom, Music, Christopher Sly, Jenny Jones, Slater's Warrior, Princess Charlotte, Lord Milton, and King of Scarlets. 7. Edleston Elliott, Esq., Rochdale, Cheetham's Boadicea, Firebrand, Young Milton, Triumphant, Christopher Sly, Ivanhoe, Lovely Ann, Lady Gardiner, Admiral Curzon, Slater's Warrior, Sir Joseph Paxton, and Exit.

Class B, PICOTEES, Twelve Dissimilar Blooms, open to all.—1. R. W. Foster, Esq., May's Helen, Amy Robsart, Mrs. Norman, Mrs. Bayley, Alfred, Dodwell's Minnie, Mrs. Barnard, Rosetta, Alice, seedling, Haidee, and Queen Victoria. 2. J. Openshaw, Esq., Mrs. Lochner, Lavinia, Amy Robsart, Eugenia, Mrs. Eyre, Mrs. Barnard, Sultana, Dodwell's Minnie, Gem, Haidee, Ellen, and Mrs. Bayley. 3. James Whitehead, Lord Nelson, Lavinia, Mrs. Dodwell, Mrs. Kelke, Lizzie, Mrs. Lochner, Mrs. Bayley, Queen Victoria, Alfred, Countess, Prince of Wales, and Amy Robsart. 4. William Baildon, Halifax, Little Nell, Princess Royal, Kate, Alfred, Mrs. Bayley, Mrs. Crowe, Mrs. Norman, Miss Holbeck, Amy Robsart, Helen, Mrs. Barnard, and Prince of Wales. 5. Robert Hall, Prince of Wales, Little Nell, Queen Victoria, Bertha, Alfred, Mrs. Bayley, Lord Nelson, Eugenia, Mrs. Drake, Mrs. Norman, Mrs. Eyre, and Haidee. 6. Henry Steward, York, Mrs. Bayley, Mrs. Eyre, Mrs. Lochner, Green's Queen, Victoria, Amy Robsart, Mrs. Hoyle, Lady Granville, Mrs. Kelke, Alfred, Haidee, Lady Macbeth, and Esther. 7. William Smith, Darlington, No. 19 Rose Picotee, Ada Mary, Eva, No. 11, No. 10, No. 14, Lauretta, No. 9, Florence Nightingale, Finis, Mrs. Turner, and No. 8.

Class C, Twelve Dissimilar Blooms, Six CARNATIONS and Six PICOTEEs, open to Growers whose Stock does not exceed a Hundred and Fifty Pairs. —1. Jonathan Chapman, Halifax, with Lovely Ann, seedling, Admiral Curzon, Squire Trow, Firebrand, Jenny Lind, Prince of Wales, Kate, Mrs. Kelke, Mrs. Bayley, seedling, and Amy Robsart. 2. Thomas Walmsley, Oldham, Admiral Curzon, Black Diamond, William IV., Lovely Ann, Mr. Ainsworth, Beauty of Woodhouse, Mrs. Bayley, Alfred, Amy Robsart, Prince of Wales, Haidee, and Eva. 3. James Cheetham, Rochdale, Admiral Curzon, Beauty of Woodhouse, Black Diamond, Lady Gardiner, Unknown, Boadicea, Amy Robsart, Haidee, Mrs. Turner, Mrs. Bayley, Mrs. Kelke, and Mrs. Norman. 4. Thomas Bower, Bradford, Admiral Curzon, Poor Tom, Squire Meynell, Jenny Lind, Sportsman, Beauty of Woodhouse, Prince of Wales, Mrs. Bayley, Mrs. Eyre, Duke of Rutland, Alfred, and Haidee. 5. Thomas Mellor, Ashton-under-Lyne, Earl of Wilton, Lovely Ann, Lady Gardiner, Jenny Lind, Duke of York, Earl of Leicester, Amy Robsart, Haidee, Lord Nelson, Dr. Pitman, Grace Darling, and Mrs. Bayley. 6. Thomas Williamson, Oldham, Captain Edwards, Admiral Curzon, Christopher Sly, Lord Milton, Lovely Ann, Companion, Mrs. Kelke, Miss Holbeck, Mrs. Dodwell, and Picnic. 7. John Hardman Darcy Lever, Bolton, Admiral Curzon, Millwood's Premier, William IV., Splendour, Ariel, Lord Milton, Amy Robsart, Hardman's Poor Jack, Alfred, Little Nell, Mrs. Lochner, and Gem.

Class D, Single Blooms, open to all.

CARNATIONS.

Scarlet Bizarres.

- 1 Admiral Curzon, J. Whitehead
- 2 Sir Robert Peel, Colonel Lee
- 3 Sir Joseph Paxton, J. Normanton
- 4 Captain Edwards, Robert Hall
- 5 Mr. Ainsworth, ditto
- 6 Duke of York, John Hardman

Crimson Bizarres.

- 1 Puxley's Jenny Lind, J. O. Openshaw
- 2 Slater's Warrior, Colonel Lee
- 3 Rainbow, ditto
- 4 Black Diamond, ditto
- 5 Lord Milton, J. O. Openshaw, Esq
- 6 Paul Pry, ditto

Scarlet Flakes.

- 1 Kay's Splendour, J. O. Openshaw
- 2 Firebrand, ditto
- 3 Christopher Sly, ditto
- 4 Mr. Ainsworth, John Hardman

The Premier Prize for the best Carnation was awarded to J. O. Openshaw, Esq., for Puxley's Jenny Lind, C.B.

- 5 Rhodes's Lady Rhodes, J. O. Openshaw, Esq.

- 6 Kay's York and Lancaster, ditto

Rose Flakes.

- 1 Maid of Athens, J. O. Openshaw, Esq.
- 2 Duchess of Devonshire, ditto
- 3 Cheetham's Queen Boadicea, J. Cheetham

- 4 Ariel, J. O. Openshaw, Esq.

- 5 Lovely Ann, ditto
- 6 Lady Ely, ditto

Purple Flakes.

- 1 Squire Meynell, J. O. Openshaw, Esq.

- 2 Lady Peel, ditto

- 3 Premier, Thomas Bowers

- 4 Squire Trow, J. O. Openshaw, Esq.

- 5 Queen Victoria, ditto

- 6 Earl Wilton, Thomas Williamson

PICOTEEs.

Heavy-edged Purple.

- *1 Mrs. Bayley, Edleston Elliott, Es.
- 2 Lord Nelson, Samuel Yardley
- 3 Lady H. Moore, Robert Hall
- 4 Nulli Secundus, Colonel Lee
- 5 Princess Alice, J. O. Openshaw, Esq.

Light-edged Purple.

- 1 Amy Robsart, William Baildon
- 2 Alfred, Colonel Lee

- 3 Haidee, J. O. Openshaw, Esq.

- 4 Little Nell, John Hardman

- 5 Miss Holland, Colonel Lee

- 6 Mrs. Eyre, J. O. Openshaw, Esq.

Heavy-edged Red.

- 1 Prince of Wales, William Baildon

- 2 Poor Jack, John Hardman

- 3 Mrs. Dodwell, J. O. Openshaw, Esq.

- 4 Mrs. Headley, ditto

*This Mrs. Bailey took the premier prize as the best Picotee at the meeting.

- | | |
|---------------------------------------|---------------------------------------|
| 5 Mrs. Lochner, J.O. Openshaw, Esq. | 3 Minnie, R. W. Foster, Esq. |
| 6 Mrs. Norman, William Baildon | 4 Queen Victoria, Robert Hall |
| <i>Light edged Red.</i> | 5 Lady Granville, J.O. Openshaw, Esq. |
| 1 Lauretta (seedling), W. Smith, Esq. | 6 Countess Errol, ditto |
| 2 Prince of Wales, Colonel Lee | <i>Light-edged Rose</i> |
| 3 Gen., J. O. Openshaw, Esq. | 1 Eva (seedling), W. Smith, Esq. |
| 4 Miss Holbeck, William Baildon | 2 Mrs. Barnard, J.O. Openshaw, Esq. |
| 5 Esther, H. Steward Esq. | 3 Bertha, ditto |
| 6 Rosetta, James Whitehead | 4 Lizzie, James Whitehead |
| <i>Heavy-edged Rose.</i> | 5 Mrs. Crowe, J. Chapman |
| 1 Seedling, No. 19, W. Smith, Esq. | 6 Countess Errol, J.O. Openshaw, Esq. |
| 2 Laura, R. W. Foster, Esq. | |

JOHN SLATER.

Cheetham Hill, near Manchester.

Opinions on Flowers, &c.

GARDEN LABELS.—For neatness and durability, we would recommend a label we accidentally met with the other day, the appearance of which very much delighted us. It is made of zinc, is of an ornamental shape, covered with five coats of white paint, and then very neatly lettered in a bold italic character with the name of the plant, after which, the whole receives a coat of varnish. The price of these labels is indeed very moderate, varying from three halfpence to fourpence each. It is no uncommon thing to pay five, or even ten guineas, for an orchidaceous plant, but to pay twopence-halfpenny to have it decently named, is quite out of the question. This is one of the evils in floriculture. How pleasant it is to go into the house of an amateur, or to a floral exhibition, and find every thing neatly and legibly labelled, and no occasion to inquire the name of subjects we happen not to be acquainted with. We need add nothing more to this remark, but simply give the address of the maker, F. H. Lydbury, North Salop; and should our readers procure this real acquisition to the florist, they will find their money well spent.

SEEDLING GLADIOLI.—X. Z.—No. 1. Pink, prettily marked with rose. 2. Pale scarlet, marked with white and rose. 3. Dead. 4. Pinky rose, nicely feathered with dark rose. 5. Nearly the same as four, only the feather broader. 6. Purple, feathered with darker purple and white. 7. Pale scarlet, feathered with light yellow and white. 8. Same as four, only a little more white. 9. Missing. 10. Shut up and withered. 11. A fine large flower, orange scarlet, spotted and feathered; a noble variety. The above are all good, and some of them desirable nicely marked varieties, though for the most part similar to those we already possess.

SWEETWILLIAMS.—Mr. Hunt, of High Wycombe, has afforded me much true pleasure, by sending the following specimens, raised and tended by himself, of the lovely gems of this tribe of flowers. 1st. White, crimson ground, with pink eye, pencilled. 2nd. White, pink ground, and centre beautifully rayed. 3rd. White, deep crimson, centre bright pink, finely shaded. 4th. White, purple ground, white eye, with a circle between eye and ground; most splendid. 5th. White, deep carmine ground, and pink eye, beautifully pencilled and shaded. 6th. White, with purple circle and large white eye. 7th. White, with blueish purple centre and eye, beautifully pencilled. 8th. White, purple centre, white eye, semi-double. 9th. White, deep carmine ground, with splendid white eye. 10th. Crimson, dark carmine ground, and light crimson eye. 11th. Carmine, with darker ground and lighter centre. 12th. Puce, with lighter eye and white edge. 13th. Bright velvety crimson, with a dark circle and crimson centre. 14th. Very dark velvety crimson, with lighter centre. 15th. Crimson, with lighter eye and white edge. And many other perfectly distinct varieties, all rose-edged, and of the most vivid velvety and pleasing colours imaginable. Mr. Hunt merits the highest commendation, for his care and industry in bringing these lovely flowers to such a high state of perfection. Some of them exceed the size of a shilling, none are less, and if Mr. Hunt's health permit, I hope he will strive on till he can show them as large as a halfcrown piece.—J. CUNNINGHAME.

Queries and Answers.

FUCHSIAS.—A Subscriber from the First will find, in this month's number, a list of the best eighteen Fuchsias, from which he can select the twelve most suited to his fancy.

PANSIES.—Will you please give me names of the best twelve show Pansies out.—ALEX, *Cheltenham*.—The same post that brought Alex's query, also brought the excellent list from our friend, Mr. Oswald, which will, we think, be all Alex requires.

AURICULAS.—A correspondent wishes for the names of eight really good Auriculas. I give the names of the best four varieties in each class, beginning with the best, so that if he only need two in a class, the first two should be taken. I thought that naming four would be preferable to only two.—*Green Edges*—Lee's Col. Taylor, Campbell's Lord Palmerston, Booth's Freedom, Page's Champion.—*Grey Edges*—Cheetham's Lancashire Hero, Sykes's Complete, Fletcher's Ne-plus-ultra, Kenyon's Ringleader.—*White Edges*—True Briton, Ashworth's

Regular, Taylor's Favourite, Cheetham's Countess of Wilton.—*Selfs*—Netherwood's Othello, Whittaker's True Blue, Kay's Jupiter, Bury's Lord Primate.—JOHN HEPWORTH.

Will you describe, in the next number of my favourite, the *Midland Florist*, the best construction for protecting from frost and keeping in a growing state through summer and winter, such plants as Fuchsias, Pelargoniums, Verbenas, Petunias, &c. Likewise the best mode of heating a small greenhouse through the winter, to protect florists' flowers from frost, without the aid of fire, it being near a building, thatched with whins, liable to ignite.—AN OLD SUBSCRIBER.—HEATING WITHOUT FIRE.—The most effectual, the most innocent, and most lasting heat is produced with tan, but its application to a greenhouse or conservatory is rather awkward work, yet, where a building is near a thatched roof, or hayricks, corn, straw, or bean stacks, it must be done. There are several novel applications of gas, which hardly comes under the denomination of fire, because no sparks are emitted, and there is certainly no danger of overheating. A third mode of heating is by dung, but there is some difficulty in applying it, on account of the litter it makes, and if applied internally, there is danger from the steam, which is noxious. Now tan is the least expensive and most wholesome. If the house is a "lean-to," that is, backed against a wall, high behind and low in front, tan can be applied under the stage, and a body of tan will emit heat enough to keep out any frost, and when the weather is favourable, enables us to give air freely, at all times, when there is no danger; and this is necessary, for the greenhouse temperature can never be too low, short of freezing. Supposing then a house to be clear of all obstruction underneath the stage, let there be a two-foot boarding, or four-inch brickwork, five or six feet from the back wall, and fill in all the space between that and the wall with new tan, throwing it up in a slope, against the wall, to the height of five feet, and thus forming a complete tan pit under the stage. The darkness will, of course, prevent any plants growing therein, because they would be drawn and spoiled, but it may be used for growing mushrooms, and produce enough to pay well for the tan, of which it will take no small quantity. It has to be pressed flat on the surface, or rather, we ought to say, smooth, and it will take three inches of good light and moderately rich soil all over it. When there is a genial warmth on the surface, plant lumps of spawn, a foot apart, about as large as a hen's egg in quantity, just below the surface. Now the heat emitted from this body of tan will raise the temperature sufficiently to keep out a most intense frost, when the house is closed, but you may always give air when the glass marks forty-five, and it may be as open as you please when there is no sign of freezing out of doors. The bed should be slightly covered with straw, and the soil occasionally watered; for, as the tan is almost a dry heat, the com-

post at top will frequently want moistening. If dung must be used, it must be covered with three inches of soil, to purify what would be the noxious vapour that arises from the dung, and which would be fatal to plants. In this case, it must be the droppings, and not raw stable dung; and if droppings, the mushrooms will be far more certain than with tan. In either case, the house will be heated when closed, and the only pains you will have to take will be that of keeping the heat moderate, by free ventilation. Indeed, we should always give a little air at the top, or rather, we should say, let out the heat; for, even in a frost, a moderate ventilation at top will be safe for one night, and it can be closed, if it sets in very severely. Gas is applied to heat a small boiler, and iron pipes along the front, to return the same way, are used, the same as if it were a fire-heated boiler.

Notes for the Month.

CINERARIAS.—Repot any plants that have filled their pots with roots. Use rich soil, with plenty of drainage. Place them in a cold frame, and when the plants have made a start, give abundance of air, which will cause them to grow strong. From varieties of which a larger stock is required, side shoots may be taken and struck. Watch for mildew, and as soon as perceived, dust the leaves with black sulphur. I know of no better cure. Repot and encourage seedlings.—**JOHN DOBSON, Woodlands Nursery, Isleworth.**

DAHLIAS.—As before, only towards the latter end of the month earth them up well, to keep the frost from the roots. Gather seed as it ripens.—**RICHARD EDWARDS, Nuthall.**

FLOWER GARDEN.—Remove to the dwelling-house as many as you can of the plants in the borders that are to be saved in pots, or, for want of better accommodation, dig a pit deep enough to hold them, and cover it with boards, or build a pit with turves, and cover in bad weather. Look over Auriculas in pots, and remove decayed stalks and yellow leaves, and at the end of the month, place them in the winter pit or frame, and give but little water, and all the air you can.—**THOMAS GIBBONS, Bramcote.**

FRUIT GARDEN.—Go over Peaches, Nectarines, &c., and see that the branches are firm to the walls. When the fruit is covered with too many leaves to allow of its being ripened, a few should be taken off. This must only be done when the leaves darken the fruit, and then cautiously. Hang up bottles of sweet liquor, to catch wasps, and cover fruit with net, to

keep off birds. About the latter end of the month, many kinds of Apples and Pears will be fit to gather, but, if the weather is fine, let them remain on the trees. Several descriptions of fruit trees will have begun to show signs of decay in leaves, and it is frequently found advantageous to remove them, and these trees being planted early in autumn, quickly take root, which is of great advantage.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall.*

FUCHSIAS.—Those that have done flowering may be trimmed in, and placed under a stage, or in some other convenient place, where they may be kept moderately dry. If not required for exhibition they furnish an abundance of cuttings in the spring. Those who grow large old plants must, of course, devote a good deal of room to them during the winter. I prefer those plants that may be grown into specimens in a year. To ensure them being fine specimens, healthy cuttings should be selected and put in at once, placing them in a moderate hotbed. When the plants are rooted they may be potted off into small pots, and kept growing quietly till Christmas, at which time they should receive every encouragement to make strong vigorous plants. Such as are now in flower should be liberally supplied with water, and those that require it should be tied to neat sticks. We may anticipate a fine display of Fuchsias at the Crystal Palace exhibition, on the 9th.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—Attend to directions given in last month's "Notes." All succulent plants should be removed to the greenhouse, as frosts or wet weather make their appearance, previously removing all dirt, and stirring the earth in the pots with a small trowel, being careful not to injure the roots.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempshill Hall.*

HOLLYHOCKS.—If, among your seedlings or named flowers, you have any that you are desirous of propagating, you should cut down all the stem to the lowest two or three pods of seed; this will cause them to swell and ripen well, and the greater portion will give plants like the parent, some better, some worse, but it will also induce growth at the bottom, which is greatly impeded if the spike of blooms is allowed to exhaust itself, and all the pods remain on. If you do not care for the seed, cut down the stem at once, and stir the earth about the plant. Let the soil be drawn a little to the plant. If there be tolerably good growth at the bottom, you may dig up the root at the end of the month, take off any shoots that are large enough, with or without root, and such as have no root may be planted round the edge of a pot, and kept in the shade, under glass, till rooted. Those with roots may be potted in the centre of four-inch pots. The main root may be potted up, and kept growing in a cold frame all the winter, shoots being taken off as they come, as soon as they are large enough.—GEO. GLENNY.

KITCHEN GARDEN.—Lettuce for autumn and winter must be planted ten or twelve inches asunder. Cauliflowers sown the latter end of last month, must be planted out. If placed under a hedge or north wall, they will be better able to stand the winter. Cabbage must be thinned, choosing the strongest plants, if they are required for the winter. Celery should be planted where requisite, and earthed up. Endive must be tied up to blanch, and be kept clear of weeds. Take up spring-sown Onions, and place them where they can have air and light.—**JOHN BEARDMORE, gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.**

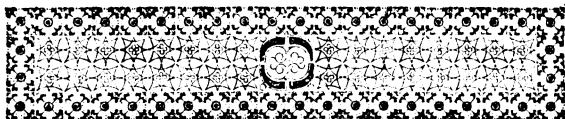
PANSIES.—The plants intended to be grown in pots, should be selected from the cutting beds, and, about the end of the month, potted up into forty-eight-sized pots, using rich soil. Select plants with five or six shoots to them. They should be placed in a dry frame, facing the south, and the lights be kept off night and day. For a list of good varieties for the purpose, see page 13, in the present volume. The end of the month, see to making new beds, and if protected from north-east winds, so much the better for early bloom; but those who wish for early bloom, cannot do better than grow them in pots,—the blooms are much earlier and better in quality than those grown out of doors. Seedlings may be planted out, and seed sown.—**J. DOBSON, Woodlands Nursery, Isleworth.**

PELARGONIUMS.—Plants standing about in frames should be at once removed to their winter quarters, before they become soddened with wet, which I believe to be the forerunner of the spot. The plants, from this time, should receive as little water as possible over the foliage, in short they require but little water to keep them in good health. Fumigate occasionally. As success depends greatly upon the soil used in potting, it will be well, this month, to get the different soils into a shed, protected from heavy rains, that they may be in good working order by the time they are required for the final repotting. I use for this purpose the top spit off a meadow, which is laid up in a heap, with one-third green stable manure to two-thirds of loam. When potting, to a barrowful of this is added four shovels of well decomposed cow dung, and a nine or ten-inch pot of silver sand. I have observed that some persons recommend one-third silver sand; this quantity is really unnecessary. Who would like to put one barrowful of sand to two barrowful of soil? With such a quantity the reverse of success must be expected. Young plants that have been struck this season, should be stopped back, to make them bushy. When large plants are wanted, give every encouragement, by admitting air at favourable opportunities, judicious watering, keeping the plants clean, and last, though not least, a clean house. The necessity of cleanliness in plant growing, of whatever class, cannot be too strongly or too often urged. The old cut down plants will require plenty of air, and must not be crowded.

They should also be in their winter quarters.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PINKS have properly rooted, if they were prepared in time, and when well struck, they should be planted in the beds they are to bloom in, nine inches apart every way, or in store beds, six inches apart. The soil should not be over rich. Pinks are not wanted to grow in winter, but simply to make good roots and keep in good health. The less they are excited the better they stand. From this store bed, they may be sent out as wanted, or they may be potted singly, in three-inch pots, to be sent out any time before March. They will do well, if bedded out from these pots any time that month. They must be wintered in a cold frame, protected from frost, because a temperature that would not freeze the ground an inch would penetrate the sides of a pot, and kill the points of the fibres, which would give the plant a check it would hardly get over to bloom well. It is not too late to layer Pinks, though we should, from choice, have done it a month sooner. This is to be done the same way as Picotees and Carnations, and is generally resorted to when the piping has been neglected.—G. GLENNY, *Dunganon House, Fulham.*

STRAWBERRIES.—This month and March are, perhaps, the two best in the year for making extensive plantations of Strawberries, with the least risk. Plant as previously directed, and if the weather be dry, give a good watering, which must be repeated, if required. Mulch between the rows with stable litter or tanner's bark, an inch thick. If on ridges, follow the directions for March and July. The plants can be taken from the nursery bed, as recommended last month, if strong enough, or from the fruiting beds, layered, and pegged down, as described in June. Continue to make nursery beds, for spring planting. For tender sorts, and those that have been procured from a distance, the following is recommended as the best means of saving them over the winter, for planting in March. Choose a piece of light rich ground, upon a dry subsoil, in a sheltered situation, but open to the sun. After planting, place bricks, or drive strong stakes into the ground, at the south end of the bed, to stand about eighteen inches high; then lay poles, such as the tops of larches, with the thick ends on the ground, to the north, and the small ends raised on the bricks or stakes, to the south. Old Raspberry canes, or some other similar material, may be used as a thatch. Lay the canes lengthways of the bed, so that the water may run off. In severe weather, mats, or a piece of canvass, laid on the top, with two or three cords passed over and secured to the ground, by pegs, will make a capital covering, and the plants will be found to keep better this way than in frames. Mulch with short manure, such as that of an old Cucumber bed, and water when required. A shallow trench should be made all round the bed, to take off the water.—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*



OCTOBER.

The Shows in the North.

THE great exhibition at Newcastle-on-Tyne produced Hollyhocks and Dahlias in perfection and profusion. The first three stands for Dahlia prizes were very superior, and too close to be pleasant. Each individual made up his mind he was first, and, as usual, it was difficult, if not impossible, to reconcile the losing men to their fate; and when it requires every point, and every deficiency to be summed up fairly (and some of these points are always out of sight), to adjudge the prize rightly, it ought to be a lesson to managers never to allow their prizes to be widely different in amount. In the case of Newcastle: just imagine three stands that required all our quiet and serious judgment and a careful summing up of every point in twenty-four flowers, to decide between first, second, and third, and moreover the difference, very small indeed, to be thus differently rewarded, first, twelve pounds; second, five pounds; third, two pounds ten shillings. Now, if any body can say there is rhyme or reason in this, we shall be surprised. We know there are sporting gentlemen who say it is worse in horse-racing, because the first horse sweeps all; but horse-racing differs in this,—there is no difference of opinion; in fact, there is no opinion, the horse that comes in first is a matter of fact,—there is only one point to decide, and that is palpable. In flowers, there are twenty different opinions, and although we know, without anybody's assistance, which stand is the best, according to "the Properties of Flowers and Plants," or anything

universally acknowledged, and could, after any of our judgments, show any disinterested person every point which justified our decision, there are many who are so taken by general appearances, that the material points are for the moment overlooked. Hasty criticisms on a judgment proclaim the critic to be a fool. He takes a superficial view of things, and pronounces in five minutes that a judgment, which was the work of an hour, and the examination of every flower, is erroneous. Such men are always popular with losers. They make illnatured remarks on the conduct of people their superior in every thing that makes a man respected, and grumbling, like the safety valve to a boiler, alone prevents the disaffected from bursting. The judge, therefore, who looks upon grumblers with any feeling short of thorough contempt, is scarcely fit for the office. For our own part, we satisfy ourselves. We know we are right, and are as unmoved at the remarks of losers as if they were never made. If we condescend to explain to a loser, who is civil in his inquiries, it is because we desire to improve his notions, by showing him the defects, and in nine cases out of ten, he is thankful. To go back, however, to the Newcastle show. There really was not so much difference as would justify a ten shilling fall from one stand to the other, yet there was seven pounds difference from first to second, and two pounds ten shillings difference from second to third, and something like twenty to thirty shillings difference from third to fourth. Our own opinion is, that there should be less distinction in money, for then a much greater value would be put upon rank. We have another objection to wide differences between prizes, and especially to large prizes for the first. It awakens the cupidity of distant exhibitors, and they come down well fortified by the best flowers in their neighbourhood, and the local people stand no chance. Each distant man too often represents almost the best growers in the county,—at all events, all the good growers in his vicinity. The best prize for a stand of twenty-four Dahlias, ought not to

be higher than five or six pounds; and, instead of giving three or four, to feed the cupidity of itinerant exhibitors, give ten, so that if those who make a living of showing take the first three or four prizes, there shall be a remainder for honest showers to compete for. At present, honourable men, who exhibit their own flowers, only know they have no chance, and therefore abstain altogether. Suppose, at Newcastle, they had given the same amount of prizes, in the open class, divided in five pounds, four pounds three pounds, fifty shillings, forty shillings, thirty shillings, twenty shillings, fifteen shillings, ten shillings, five shillings, there would have been twenty or thirty stands put up.

At Alnwick, there was a superb show of Dahlias, better than at Newcastle, and the stands were just as close to each other. It was no discredit to be a loser: a day earlier or later would have changed the position of the winners, the decisions might have been reversed. The class showing was not sufficiently clear, but there were some good flowers put up for the single bloom prizes. Fruit was abundant, and beyond all praise. Chiswick and the Regent's Park may have shown fruit to greater advantage, for the day was not only cloudy, but wet, and therefore there was no bright light to see anything by; but for quantity and quality, this collection was never beat. Some baskets were worth all the journey to look upon. The vegetables from cottagers were of the first class, vieing in every point with those of the gentlemen's gardeners, and a tent, in which were exhibited collections from allotment holders under the noble Duke of Northumberland, ought to have been a lesson to every wealthy spectator, and there was an excellent sprinkling of these. How many hours of idleness, of drunkenness, and of gambling, had been changed, by the allotments of ground and the premiums for good cultivation, to hours of industry and perseverance, no one can tell; but the sight must have been gratifying to every friend of the working man. The show of ladies, in a fancy bazaar, for the benefit of the free school, beat all the rest of the exhibition, and we

should not like to have been sent in as judge. We left Alnwick with regret, but were bound for Bretton West, where the horticultural exhibition is linked with shows of poultry, pigs, and cattle, and draws the people by thousands from the surrounding neighbourhood. Here was the largest Dahlia show in the north. Many hundreds of blooms are set up for class showing, and many classes of stands. The open class has to compete for prizes almost after our own heart, at least there is an approach to it—six, five, four, three, two, and one pounds—and a fine competition it was. The leading prize was taken by Harrison, of Darlington, and the second by Edwards, of Nuthall, with flowers which admitted of no doubt. The others were a very close race, in which the last man, and even several of the losing ones, did themselves great credit. The vegetables too here formed a noble feature. Barratt, of Wakefield, exhibited some hundreds of Grapes and Grape seeds, forming quite a feature in this exhibition, large as it was. But it is impossible to begin distinguishing exhibitors of plants, flowers, fruits, and vegetables. The poultry was beautiful,—superior to the poultry shown in the metropolis.

Our next place was Stamford, where the town hall was filled, and would have been, had it boasted rooms thrice the size. Here too every thing was excellent; the only fault was, it was too crowded to show the plants and flowers off, and no part of the ladies' dresses, except their bonnets, were visible, until they got outside. This rather takes from a horticultural display. Compared with those of the north, the shows in the south and south-west are tame affairs. Everybody seems to enjoy the scene, and none more than ourselves. Some splendid things may be found amongst the growers north of Peterborough, and in fruit they have no rivals. We do hope we have impressed the managers in the north with the importance of increasing the number of prizes in each class, lessening the gradations from one to another, discontinuing prizes to cottagers, for flowers, and throwing all the amount into rewards

for useful vegetables. We know we are right in this. We have seen the change work well, and have had to give three or four prizes among twenty baskets of Potatoes, when we heartily wished we could give a prize to each, such is the enthusiasm of cottagers and allotment holders, when their industry is guided into a proper channel. Before a cottager can successfully compete in florists' flowers, he must expend as much as would clothe a large family, or beg, borrow, or steal to the amount. Prizes for flowers offer a premium to extravagance or thieving. If left alone, the cottager makes his garden pretty for a few pence,—if excited to try for prizes, he spoils his garden, suffers privation, or thieves, for he cannot buy, without spending money that ought to be saved, or expended on his family.

GEORGE GLENNY.

Ferns.—Gandy Fernery.

EARLY associations with Cryptogamia have since rendered its study relishable. Even ere the mind gained the advantages arising from botanical knowledge, the fine fronds of the indigenous species invariably found a place, when "I culled me a nosegay of wild flowers," the intended peace offering to an anxious parent, from whom, in juvenile idea, I expected chastisement, for having taken French leave of absence for a few hours, after the village schoolmaster had pronounced to us the the most acceptable of all the verbs, "dismiss;" and in after years, with what delight did I, in company with a person equally impressed with a love of the study, traverse mountain, plain, and dale, in quest of our favourites, frequently extending our rambles to "where ptarmigan and heath cock bled," and regaling ourselves with the fruit of the cloud berry (*Rubus chamomorus*), or quenching our thirst at the mountain rill. But

these are recollections of scenes "where my young footsteps in infancy wandered," and over which twice ten summers have since spread their glories.

Mr. Editor, with your permission, I would beg to direct the attention of the amateur to the formation and furnishing a spot in some favourable nook of his little garden, to which the name of hardy fernery may be applied. The situation to be selected for this purpose must, beyond question, be shady, but not wet; for although many of the indigenous species may be seen growing in seeming health, on dry banks, and exposed to the most direct rays of the sun, the same species may be seen in giant luxuriance, in a shady place, perhaps within a few yards of the other. It may be that the amateur has no shady place in his garden, but the inventive mind will soon put its owner in possession of a shady nook, where no shade existed,—by planting a few quick-growing shrubs, the situation in detail is obtained for a mere nothing. In addition to the extreme beauty of the foliage, the easy cultivation of most of the plants comprised in the class Cryptogamia has of late years induced many owners of horticultural establishments to add many of these truly beautiful objects to their already most superb collections of stove and greenhouse plants, and the hardy fernery forms a pleasing and attractive feature in garden scenery, and the fine foliage of many of the strong-growing kinds produces a glorious effect when seen floating in the breeze. The shape and extent of the hardy fernery will be best dictated by the owner's fancy, but one thing is essential, and that is at least a foot of suitable soil, in proximity to the roots. The soil which suits most Ferns of moderate growth, is three parts of rather light fibry peat, and one part turfy loam, not of a stiff character; or leaf mould will be found to answer, if peat cannot be had. This should not be made fine, but used on the surface in pieces varying in size from a man's hand to a Walnut, and rather finer near the roots. On the surface may be placed blocks of wood, roots of trees, burs, stones, or any thing of a

rough appearance, which not only gives a rustic feature, in keeping with the occupants, but is a direct means of retaining moisture, which is especially necessary to a successful cultivation of Ferns.

I will now proceed to notice a few of the more generally useful species, and some of their varieties, which will be found to have a good effect in the hardy fernery.

<i>Osmunda regalis</i>	<i>Scolopendrum vulgare crista</i>
„ <i>spectabilis</i>	„ <i>galli</i>
<i>Asplenium trichomanes</i>	„ „ <i>laceratum</i>
„ „ <i>cristatum</i>	„ „ <i>crispum</i>
„ <i>adiantum nigrum</i>	„ „ <i>ramosum</i>
„ „ <i>variegatum</i>	„ <i>majus</i>
„ <i>ruta muraria</i>	<i>Adiantum pedatum</i>
<i>Lastræ oreopteris</i>	„ <i>capillus veneris</i>
„ <i>Thelypteris</i>	„ „ <i>incisum</i>
„ <i>cristata</i>	<i>Athyrium filix fœmina</i>
„ <i>dilatata</i>	„ „ <i>purpurea</i>
„ <i>spinulosa</i>	„ „ <i>crispum</i>
„ <i>filixmas</i>	„ „ <i>multifidum</i>
„ „ <i>palacea</i> (<i>Dryop-</i>	„ „ <i>depauperatum</i>
<i>teris Borreri</i> of some)	<i>Cystopteris fragilis</i>
„ <i>marginalis</i>	„ <i>Dickiana</i>
<i>Polystichum Lonchitis</i>	„ <i>bulbifera</i>
„ <i>angulare</i>	<i>Polypodium dryopteris</i>
„ „ <i>proliferum</i>	„ <i>phegopteris</i>
„ <i>lobatum</i>	„ <i>cambricum</i>
„ <i>aculeatum</i>	<i>Pycnopteris Sieboldii</i>
<i>Scolopendrium vulgare</i>	<i>Dicksonia pilosiuscula</i>
„ „ <i>multifidum</i>	<i>Botrychium Lunaria</i>
„ <i>lobatum</i>	<i>Ceterach officinarum</i>

Many more might be mentioned, equally deserving a place, but these I have seen growing, and have grown most of them. The quantity and quality must depend on the space to be furnished and the nature of the scenery in which the fernery is placed. Perhaps superior varieties may be substituted for some of those mentioned, but this will be better known by an inspection of some fern grower's collection.

The distance between the plants, when planted, will depend on the growth of the species. Three to four feet for the strongest kinds, and a proportionate distance for those of more diminutive habit.

Beautiful margins to the paths about the hardy fernery may be made, by planting alternately patches of *Asplenium trichomanes* and *Selaginella* (*Lycopodium*) *denticulata*. The latter I have seen growing twelve miles south-east of London, in a hardy fernery, where it stood the winter of 1856, and at the time I saw it, had all the appearance of a hardy plant; but perhaps its effect would be more satisfactory if it were treated as a half hardy species, grown in pots, and removed to the hardy fernery in May. Many of the species I have mentioned, such as the *Scolopendrium*, are well worthy of cultivation in pots, for the conservatory, where I think they seem more at home than any where else, and if well grown, form imposing specimens, especially where they have the advantage of shade and coolness, and are kept somewhat moist. *Polystichum angulare prolifèrum* forms fine specimens in pot culture, and is one of the best to propagate, producing a number of viviparous plants along the midrib of each of the old fronds. From a small plant of *P. angulare*, received last September, in a four and a half-inch pot, I obtained, during the past summer, fourteen or sixteen small viviparous plants, which are now growing in four and a half-inch pots, and I expect to make good specimens, next summer. Much more might be said in reference to these beautiful objects, but I will not trespass further on your valuable space, and if I shall be the means of assisting any of your readers, by these imperfect remarks, I shall deem my time well bestowed.

GEORGE TAYLOR.

Danson, Kent, September, 1857.

Banunculus Bloom, & Preparing the Beds.

AFTER what has been so ably written by old cultivators of this sweet and gorgeous flower, an especial favourite of mine (Tulips I like and admire very much, but, of

all the purchases I have made, not one single good strain have I in store. No; not one!), I have merely to say, Mr. Editor, that on planting, I found my tubers so very small, that I determined to give them a year's rest. Many did not vegetate, and as the buds appeared on the stems of those that did, I nipped them very gently off, until I had denuded every plant of its flower stem. After all frost was gone, I watered liberally between the rows, and shaded the bed during the extreme heat of the day, and by this means the grass throve luxuriantly, and on taking up the tubers, I found most of the shy bloomers improved in size, and others with pretty fair increase.

I fully expected that ere now some old and practical man would have given a few notes on their flowering, &c. But, no; awaiting as with the Pink, I thought it a pity that one so inadequate for the task should have both single and bass fiddle to himself. Still, however, this is more consonant to my feelings than to have a whole host of gossipers for ever tormenting me. To those who cultivate this charming flower, I would offer a few notes of my practice, and would suggest that now is the best time to prepare the bed. If in the same place as last season, I would say, remove the spent soil to the depth of three inches, and put it on your Tulip bed; then throw out all the soil on to the path, and allow it to sweeten for a week or ten days, In the interim, place in the bottom of the bed two inches of fresh cow dung, without any mixture of straw, and at the expiration of the ten days, fill up the bed, say nine inches, with the earth taken out, on the top of this put a layer of two inches of one-year old cow dung, and then throw in the remaining soil to within three inches of the top; and this three inches I would certainly advise to be of close turfy soil, well inclining towards clay, but not so heavy or stiff as to crack with the heat of the sun, and expose the fine fibres, which is so fatal to the well-being of this delicate root. This plan, although a little toilsome to a lazy person, must, if a fair bloom is desired, be adopted

without procrastination, not left to the eleventh hour, as is frequently the case with many well informed and practical florists. No, no; the present hour is ours, to-morrow we know not what may happen, and all being prepared, we are at rest, and may, if in health, await with patience the return of the season,

“ When reviving plants and flowers
Anew shall deck the plain,
The woods shall hear the voice of Spring,
And flourish green again.”

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

Mirror of the Seasons.

OCTOBER.

“ I saw old Autumn, in the misty morn,
Stand shadowless, like Silence, listening
To Silence, for no lonely bird would sing
Into his hollow ear, from woods forlorn,
Nor lowly hedge, nor solitary thorn :—
Shaking his languid locks, all dewy bright
With tangled gossamer, that fell by night,
Pearling his coronet of golden corn.”

HOOD.

OCTOBER, the tenth month of the year, or the eighth, reckoning from March, is drawn, says Peachum, “in a garment of yellow and carnation; upon his head a garland of oak leaves, in his right hand the sign Scorpio, and in his left a basket of Services, Medlars, and other fruits that ripen late.” The mean temperature of this month is considerably below that of September, and during its continuance, actual frost is not uncommon. The moisture of the atmosphere greatly increases, and evaporation diminishes; and terrestrial radiation, in consequence partly of the prevalence of cloudy weather, is much reduced. With the gardener, the month is one of activity and caution. Frost will come, sooner or later, and when it has made devastating inroads into the various beauties, they must be carefully removed. On the fine sunny days, the butterfly may still be seen sporting among the lingering Dahlias,

late-blooming Asters, and other flowers. Insects are beginning to be very scarce, almost all are dead or in a state of torpor. The migratory birds, having enjoyed the genial breezes of summer, are now sped to more favourable climes. Another phenomenon is the work of the gossamer spider, commonly seen in the autumn, covering the fields, trees, and flowers. A strange notion, entertained by old writers, was that it was composed of dew, burnt in the sun. It is, however, formed by an infinite number of small spiders, which have the power of shooting forth several long threads, to which they attach themselves, and thus becoming buoyant, are carried gently through the air. Gilbert White, in his *Selborne*, says, "Nobody doubts but that they (the webs) are the production of small spiders, which swarm in the fields, in the fine weather of autumn, and have a power of shooting out webs from their tails, so as to render themselves buoyant and lighter than air. Last summer, one alighted on my book, as I was reading in the parlour, and running to the top of the page, and shooting out a web, took its departure from thence. But what I most wondered at, was that it went off with a considerable velocity, in a place where no air was stirring, and I am sure that I did not assist it with my breath. So that these little crawlers seem to have, while mounting, some locomotive power, without the use of wings, and to move in the air faster than the air itself." We shall, perhaps, by and by, have something more to say on the gossamer spider, but our space will not permit it at present. If the gardener has any extensive alterations in contemplation, they should be commenced as soon as convenient, for there is never too much fine weather for new ground work, sometimes extreme wet interfering for weeks together. Laying down new turf, forming new beds and clumps, removing deciduous trees and shrubs, and taking away any that crowd better things may all be advantageously done during the fine weather. The gardener must not think his work accomplished as soon as frost makes its appearance, but labour on with cheerfulness and hope.

The Ranunculus.

ON a review of the past season, in relation to the Ranunculus, it can hardly be said that the expectations of cultivators have been fully realized. Not that these expectations were ill-founded, for the planting season was good, the appearance of the plants in rows was favourable, and the subsequent growth, till the middle of May, was luxuriant; but the time of the rising of the flower buds was one of trial. Cold and drought seemed to stagnate the sap in the buds, and although they advanced in height, there was not a corresponding expansion and increase in size, and thus, with an average quantity of blooms, there were fewer reached that standard of perfection which is the crowning point of the florist's ambition and commendable pride. Each succeeding year affords proofs that one season suits certain varieties better than another; and it is observable that a specified variety may have attracted no notice for a year or two, but the next season will rise into view, and assert its claim to attention and favour. Belle Agreeable and Boz are varieties illustrating this remark, and, perhaps, it is among the sorts with white grounds and high colouring, and more especially the spotted class, that these deviations are observable. The value of liquid manure, administered between the rows, was appreciable this season, as the early part of June was hot and dry; and a cool top-dressing was also very useful, as the season was a forcing one for this flower. The following varieties, noted as excellent in quality and producing fine blooms, were amongst the notorieties of the season.

Fairy.—White ground, with small rose spot on each petal, chaste and delicate.

Larne.—White, lightly edged with purple.

Prince Albert.—Delicate sulphur ground, with reddish brown edge.

Nazara.—A standard dark red self, very rich.

Liffey.—Clear white, numerous purple spots constituting the edge.

William Bradshaw.—White, with pretty purple edging.

Charlotte.—Cream, sweetly mottled with rose.

Archibald Johnston.—Golden yellow, with red edge.

Melanthon.—White, with pretty rosy shading.

Salome.—Clear creamy ground, crimson spots.

Ninus.—Deep orange, yellow ground, with brown spots.

Saressa.—A high crown flower, yellow, red spotted.

Meekness.—White, purple edged.

Palmerston.—Yellow, brown edge, and spotting.

General Barnard.—Light crimson self.

Exhibiter.—Pure sulphur ground, crimson spots.

Poliander.—Yellow, with brown edging.

Sir J. de Græhne.—Pale sulphur, red edged.

Lord Verulam.—Cream, crimson spot.

CAREY TYSO.

Wallingford.

A Few Words on the Protection of Tulips.

So many persons are now giving instructions, quite at variance with each other, for the management of Tulips, that I could not but offer some plain directions, which I have found to answer, after forty years experience.

The Tulip does not grow well, for any lengthened period, in light soil, and the most suitable is that which will grow Carnations, neither too light nor too heavy. It is well, however, occasionally to give a total change of soil, for, like ourselves, they require change, to invigorate the system. All plants have a tendency to grow sickly, if they remain in one situation and in one kind of soil. Tulips seldom do well in the same soil in which they have been previously grown, and are subject to a disorder which is very fatal to the bulb. Some time ago, I had grown my roots very well in rotten turves, of several years standing, and this I thought so good that I might venture to plant them in it the second year; but the result was, that I got the canker in them at the first joint, and the foliage, which is the support of the bulb, totally or nearly destroyed. I used the knife freely, and saved the roots, but they were not near so healthy as usual. The late Mr. Dixon followed the

same course, with the like result. As a proof that the old soil was the cause, when I had planted ninety rows in one of the beds, I was short of soil, and used fresh for the remaining rows, every root in which was as fine, both in foliage and bloom, as any ever seen, and the bulbs took up in first-rate condition. Many growers cannot get a change of soil, and therefore grow Potatoes and Tulips alternately, using old rotten manure for the former. This practice I know to have been followed with successful results. I fear the cause of Mr. Hepworth's complaints arises partly from the soil not having been purified by the sun, which was particularly the case last season. I have been at Hendries gardens, and, although the situation is low, I think the soil is suitable. I cannot see what harm could happen to the bulbs, provided the beds were well elevated above the walks. The soil appeared to me to be above two feet in depth, and, if I remember rightly, is on a substratum of gravel. Few collections have - escaped, this season, and some of the roots died down, without blooming, and were taken up in a sickly state. Those persons who made notes, will have observed that all sound roots have taken up well. If I were going to make a new garden, I should certainly endeavour to get an elevated site, as frost is most liable to injure those in low situations. Whenever morning frosts occur, the evening mist arising in low grounds settles on the plants, and invariably injures them.

Tulips require but little protection during many months; and although some persons recommend protection from heavy rains and frost, during the whole of the winter season, yet the best blooms are not procured by such methods. Covering has at all times a tendency to draw them, and almost every stem requires support. Some growers never let them have any rain, from February until they have gone out of bloom, while others water freely, when the easterly winds have dried up the abundant moisture of winter. But now for facts. For many years, I begun protecting early in March, with the same covering I used during blooming

time, and scarcely ever escaped being more or less frosted. I determined to be more careful, and took extra pains, but the results were the same, or rather worse. I then tried a series of experiments, with a cambric handkerchief, and found that the closer the handkerchief was to the plant, the greater was the protection. Finding my plans did not succeed, I got an iron frame made, twenty yards long, to cover the best bed. This frame was nine inches high at the back and four in front, thus almost touching the foliage, and as the plants grew, I raised the frame, till about the latter end of April, when I put up the regular frame, two feet six inches, and four feet in the centre, from the beds. This was carried on for a few years, but my Tulips were frosted again. I then adopted the plan of not covering at all, until about the last week in April, except with a woven cloth, the meshes of which were about the eighth of an inch apart. This screened the bed from the east wind, and afforded protection from hailstones, heavy rain, and high winds, and I could leave it on for weeks together, without drawing the plants in the least. I will forward a sample of this cloth to any one sending a stamped envelope, as I have saved a portion for that purpose. It will last many years, being made of good linen yarn; it is three yards wide, and the price is only fifteen pence per yard. Nearly all the growers in this neighbourhood have adopted it, and I can truly say that since I have used it, I have had better blooms than I had for years previously. It is a fact, that some of my beds, without the slightest protection, have been less frosted than those that have had care bestowed on them. I grow my small bloomers and offsets about four miles from Warrington and twenty-two from Manchester, and they are exposed to all weathers. In 1856, I had nine hundred blooms, without one having the slightest speck or blemish, and it has been the same this year, yet I have scarcely had a perfect bloom in the covered beds at home. I am of opinion that the cutting east winds do more damage than frost, as the beds in the garden

are slightly protected from the east, and so have escaped. If we therefore take this seriously into consideration, we perhaps may find out the sole cause of the injury. Tulips, by being protected, are made very tender, and the consequence is, when an extra sharp night comes, having only the same covering, they are severely damaged, while those without protection are kept hardy and escape. I could name many gentlemen, with first-rate collections, who now practise what I have stated, and they bring blooms to the different exhibitions in first-rate style, and with better colours. Were I to make a new garden, I should have a fence of either Beech or Holly planted round the beds; but Beech could be got six or seven feet high, which is as high as I would have it, and I would take care that the beds were at least four feet high, to allow of plenty of air. A row of Rose trees and espalier Apples are a slight protection from the wind, in my case. There can be no doubt that Tulips are hardy, but, by nursing, we make them tender. The Auricula used to grow in the open borders, but is now glassed and covered with mats, while its native habitat is alpine. If the Tulip be not hardy, how is it that it makes such rapid growth when nearly all nature is in a dormant state? Have your beds well raised above the walks, protect only from severe winds, severe hailstorms, and heavy rains, and a fine bloom may generally be depended on. The netting I use does all that is required.

JOHN SLATER.

Cheetham Hill, near Manchester.

Pinks.—Beds and Bedding.

MR. EDITOR,—I should have given a few practical notes on the Pink, in your last number, had I not had so much to say on the Tulip,—not on its properties, for not one of the *fine* strains I possess would I attempt to praise. Is it not a pity that men dealing in bulbs

should have so little conscience? I have been so disgusted at the sight of mine, that I care not to bloom them again. But I am digressing, and turn with pleasure to the sweet Pink.

September is, without doubt, the proper month to plant out the Pink, but no one, out of his abundance, contributed a mite to the lovely Pink, and these notes will be in the hands of many young florists, on the 1st of October, which period will answer very well in England; indeed, many growers in Scotland do not deem it expedient to plant before the beginning of the present month. But to proceed, without further comment, or gossiplike challenging any of my brethren, for neglect of affording practical hints on this one of Flora's gems.

I presume most of the readers of the *Midland Florist* cultivate the Pink, and I would say to them, trench your beds eighteen inches deep, breaking and comminuting the soil fine, with your digging fork, as you proceed. Having finished the space you are inclined to plant, give it a second turn over, and at the same time administer at every turn across the bed a handfull of new-slaked finely-riddled lime. After all is done, make up your bed, in length and breadth, without manure, and plant your rooted Pinks six inches apart, from plant to plant, and nine inches between the rows. My reason for not using manure in preparing the beds or planting, is this: manure, mixed with the soil, or even put into the bed as a layer, say six or seven inches below the plants, ever has a tendency to rise to the surface, and by so doing, heaves up the soil, plants, roots and all, opens the ground, makes it very spongy, and gives the frost more facility for entering. On the other hand, lime is destructive to grubs, wireworms, &c., a grand fertilizer both in heavy and light soils, and in frost, or any other weather, it does not rise to the surface; in fact, it works gradually downwards. In light soils, it comminutes freely, and renders the dusty lightness more congenial and feeding to the tender and spreading fibres of plants; and it so firms

the soil that frost cannot make that impression it does when manure is used, and thus the plants are less liable to be thrown out. Lime makes clayey soil of a more open texture, separates the hard and flinty particles, and thus facilitates the spreading of the delicate feeders of plants, permits the rusty moisture to escape, and admits pure air. If used in planting superlative strains of Tulips, on clayey soils, it would be to the advantage of all who wish to preserve their bulbs. Away again among the Tulips! Wo'nt do. About the middle of March, I top-dress my Pink beds with two inches of half-decayed cow dung, and after it has lain a week or ten days, very cautiously fork it in. This treatment, at least with my soil, I have found to be more beneficial in Pink culture than any other I have yet tried. If any florist, about a month after the top-dressing, will take the trouble of turning away the soil from the very base of the stem, he will there perceive young fibres shooting out in abundance, and these alone are the nourishers of the plant, and not the long, brown, hard fuchsialike roots: No.

In April and May, if the season is without rain, I water abundantly, with rain water. Never apply liquid manure, that is, if you wish your flowers to be of a pearly white, and gorgeously and evenly laced. I used manure water one season, and had abundance of fine grass, but, alas! all my flowers were suffused with colour, and had little of the pure white in any one of the petals. This season, I administered none, to either old plants or seedlings, and, for purity of white and evenness of lacing, I never had a finer bloom.

Mr. Editor, I presume you are fond of fine seedlings. If so, allow me space to tell you of mine. I had two seedling beds, containing three hundred plants, all crossed seed, chiefly from Old Criterion, Colchester Cardinal, James Hogg, and Rose delicate. From these I had a splendid bloom, and out of so many plants, I only uprooted and consigned to the rubbish heap about a dozen. I have piped thirteen of the extra strains. No, no; I am wrong. It is not strains, but

finely-formed broad petals, fine white, and splendidly laced. Yes; that's it, and not strains. These I have already planted out for further testing, and four of them, I must candidly say, are superior to any of Maclean's, Norman's, Bragg's, or Turner's out. The thirteen are all superior, but these four are gems, two of them gems of gems. Yes, and of the first water too. No puff. I don't sell any. From all these, I have crossed seed, and am delighted to tell you I have obtained three pods from the gems of gems, and, if spared till next spring, will try again. Now, my young friends, this is the way to improve. Be up and doing. Procrastination will never do. Laziness will never do. Tippling at home or in the beer shop will not do. Gossiping about fine things, and no work, will neither produce you fine plants nor pods of extra seed.

Mr. Editor, excuse me, for I really forgot part of my lesson on the lovely Auricula, that is on seedlings, and it only occurred to me on seeing a list of the best four in each class, in your last number. Last spring, I had six very fine seedlings, equal to any of my old sorts, and I possess the best out. In the white-edged class, True Briton is one of the best. Now I can say I have a white-edged seedling which far surpasses that variety in every quality, size included. In green edges, I have one that will eclipse both Colonel Taylor and Champion; and further, a green edge, far superior to Robin Hood, and which lies as flat as a half-crown, and is as large. Mr. Editor, one line or two more, and then I have done. In Polyanthus seedlings, I was also so fortunate as to have four ex. ex., one of which was declared by two long-practised judges, to be the best in my possession, and I have all the extra flowers out. This season, I have six seedling plants from Cobden, and five from Uncle Tom, which will bloom next spring, and on the merits of which I will report. I find seedlings under my culture to improve much the second year, and would therefore advise all youngsters not to discard their seedlings till they have seen them bloom a second season.

Of Ranunculuses, with all my care and attention, I have only obtained a few small roots. They are ticklish subjects with me. I cannot well understand why I am so unfortunate in their raising. My seed is well filled and ripened under squares of glass. Can any gentleman assist me with advice.

JOHN CUNNINGHAME.

Brookfield Cottage, Kilbarchan.

The Tulip Question.

I PLANTED two beds of Tulips, side by side, on an eastern border. One bed was well protected, the other not. They both came up strong and healthy, and remained so till the flower buds began to change colour, some weeks before which the weather was very genial, when it suddenly changed, and became cold and frosty, and in a few days, the foliage on both beds was affected similar to that of the Potato, when attacked by the disease, and nearly half the bulbs were destroyed; while another bed, planted on a north border, about six feet from the wall, in the same soil, and unprotected, remained uninjured. My opinion is that the disease is generally caused by sudden change of temperature, some soils aggravating it, as in the case of the Potato.

J. MACKLAIR HEADLAND.

Saffron Walden, Essex.

Mr. Editor,—You invite opinions. My bed, last year, was protected, and I had a most splendid bloom, while a neighbour, who also protected, and that with bast mats, has suffered dreadfully; and another neighbour, within a quarter of a mile, has also had a splendid bloom, in beds totally unprotected. The soil, in all three cases, had not had Tulips grown in it before. I ought, however, to say, that the unprotected bed is shaded on the north by a thick hedge, on the east by another thick hedge, and on the west by a row of

espalier Apple trees. My unprotected neighbour thinks that this protection by hedges, &c, is superior to any other way of protecting. The question is very complicated. I would advise all who are planting to raise their beds at least six inches above the other ground, and they should all be boarded round, to keep the soil from falling into the paths.

A LANCASHIRE MAN,

Notes on Seedling Gooseberries,

EXHIBITED AT THE SIR JOHN FALSTAFF MEETING, MANCHESTER,

AUGUST 1, 1857.

Mr. John Pickavance's red, *Eskender Bey*, a very dark coloured berry, the unripe part shewing a dull grayish colour through a dark red, a strong sound looking variety, very rough, and one of the most promising. Distinct.

Mr. Charles Dennis's red, *Great Eastern*, a light red, with a whitish under colour blended with the red, a long well formed berry, a little rough. Distinct.

Mr. Joseph Walton's red, *Dred*, a long dark red berry, very rough. Distinct.

Mr. Samuel Challinor's red, *Hastenwell*, colour and form of Lumpner, but rough. Distinct.

Mr. John Staniforth's red, a long smooth berry, something of the Lion form. Distinct.

Mr. George Ryder's red, *Nottingham*, a seedling from Antagonist, which variety it resembles in every respect, with the exception of its being very dark dull red. Distinct and promising.

Mr. George Wilkinson's red, *Registrar*, a fine long dark red, a little rough, with whitish specks showing through the red. The finest seedling exhibited on this occasion; but we regret to say that it could not pass, in consequence of being so much handled before it was submitted to the judges. Let us see it again.

Mr. George Moscroft's red, *Wincobank Hill*, a clumsy dark red, in form of London. Very rough. Distinct.

Hanchurch was again submitted, and pronounced to be Conquering Hero.

Mr. William Walker's red, *Topham*, a great resemblance to London.

Mr. Joseph Brassington's red, too near London.

Mr. Maddox's red, too near Companion.

Mr. Joseph Prophet's red, *Diadem*, very like Clayton.

Mr. James Partington's yellow seedling, *Trumpeter*, a smooth light yellow, in form of Drill. Distinct.

Mr. Henry Cook's yellow, *Favourite*, a very light yellow, a little rough. Distinct.

Mr. John Pickavance's yellow, *Moss Bank*, a light speckled yellow, very rough, in form of Broom Girl. Distinct.

Mr. George Ryder's yellow, *Omar Pasha*, a smooth light yellow, in form of General. Distinct.

Mr. Orchard's yellow, *Sneinton*, a very dark greenish yellow, shaded with orange, a little rough, very fine, and distinct.

Mr. George Addis's, yellow, *Sedgley*, a light yellow, with broad green veins, a little rough. Distinct.

Mr. James Cooke's yellow, a smooth light yellow, form of Leader, with light yellow veins. Distinct.

Mr. William Ollivér's green, a smooth light green, in form of Rough Green. Distinct.

Mr. Joseph Walton's green, *Remer*, a very long smooth light green berry, in form of Freedom. Distinct.

Mr. John Wood's green, *Plunder*, a very long smooth light green, apparently a late hard sort. Distinct.

Mr. George Moscroft's green, *Surprise*, a smooth light green, with coloured veins. Distinct and promising.

Mr. Joseph Brassington's green, *Tittenson*, a smooth light green, with light coloured veins. Distinct and promising.

Mr. George Moscroft's green, a smooth deep green, with light veins, apparently a seedling from London. Distinct.

Mr. William Hill's green, *Lady Franklin*, a long smooth light green. Distinct.

Mr. Samuel Challinor's green, *Sir George Brown*, a long light muddy green, very rough, fine and distinct, but cannot be let out in the usual way, being already in a number of hands.

Mr. George Ryder's green, *Clifton*, a smooth deep green, a seedling from Antagonist. Distinct and promising.

Mr. Orchard's green, *Colwick*, a light green, form of Green River, a little rough. Distinct.

Mr. John Smith's green, *King John*, a deep dull muddy coloured berry, in form of Drill, a little rough. Distinct.

Mr. Jonathan Case's green, *Sunbeam*, a short light rough green, like Nonpareil, with the exception of being a green. Distinct.

Mr. Locket's white, *Progress*. Distinct.

Mr. Charles Dennis's white, *Mountain of Snow*, a very white smooth berry, with green veins. Distinct.

Mr. John Pennington's white, *Rival*, a creamy white, something in colour of White Hare, a little rough. Distinct.

Mr. Orchard's white, *Mrs. Orchard*, a creamy white, with green veins, very rough. Distinct.

There was also submitted to this meeting, a yellow, called *Proctor Yellow*, said to be in several hands, a smooth veiny berry, in form of Leader, colour of Oakmere. Distinct.

Also *Increase*, which is considered too near Freedom.

Mr. Walton also exhibited his yellow, *Old Ship*, which was pronounced distinct. The colour and form of this variety very much resembles Leader, which variety it has been stated to be too near; but on this occasion, it appeared a little rough, and slightly differed in colour: still, we fear, that in some seasons it may lead to disputes.

It is particularly requested that all seedlings intended to be let out, be sent to this meeting on the day previous to the show, accompanied with the name they intend to call them, directed to "Charles Leicester, to be left at the Sir John Falstaff, Market-place, Manchester," as no seedlings will be noticed in the book as going out before being submitted to this meeting.

The judges are Mr. T. Pilkington, of Scariobrick; Mr. G. Ryder, Nottingham; Mr. A. Bromley, Hulme, Manchester; Mr. J. Daine, Carrington; Mr. A. Rhodes, Newcastle, Staffordshire; Mr. J. Taylor, Ashton-under-Line.

GOOSEBERRY SHOW,

At the Sir John Falstaff, Market-place, Manchester, August 1.

Maiden Prize.—London, Mr. Bradley	dwt.gr. 22 18
Silver Cup, value £5 —London, Mr. Torkington.....	28 12

STEWARDS' PRIZES.

	dwt.gr.		dwt.gr.
London, Mr. Wilson	27 4	Stella, Mr. Pilkington.....	21 18
Lightning, Mr. Pilkington....	22 18	Hue and Cry, Mr. Baskerville ..	21 18
Thumper, Mr. Lanceley.....	22 18	Peru, Mr. Parry	20 22
Antagonist, Mr. Orchard	22 6	Mr. Whittaker, Mr. Pickavance ..	20 12
Conquering Hero, Mr. Parry..	33 3	Railway, Mr. Oldfield.....	20 6
Australia, Mr. Bell	22 17	GREEN.	
Turnout, Mr. Hall	20 12	Telegraph, Mr. Torkington ..	21 22
Lady Leicester, Mr. Park	21 :3	Thumper, Mr. Lanceley.....	20 21
General Moore, Mr. Coombs..	23 2	Tom Joiner, Mr. Torkington ..	20 4
Leveller, Mr. Walton	22 17	Gretna Green, Mr. Orchard ..	19 20
Tom Joiner, Mr. Dennerly....	20 6	Seedling Reamer, Mr. Walton ..	19 20
Snowdrop, Mr. Nicholas.....	21 6	Green Wonderful, Mr. Wolley ..	19 20
RED.		Little Wonder, Mr. Oldfield ..	18 10
London, Mr. Torkington	27 0	Rough Green, Mr. Lanceley..	17 21
Alderman, Mr. Torkington ..	23 14	Arthur, Mr. Oldfield	17 21
Wonderful, Mr. Lanceley	23 6	Random Green, Mr. Pilkington ..	17 20
Conquering Hero, Mr. Lanceley	23 6	WHITE.	
Slaughterman, Mr. Oldfield ..	22 6	Snowdrop, Mr. Torkington ..	23 12
Companion, Mr. Orchard	21 3	Freedom, Mr. Bell	22 17
Duke of Sutherland, Mr. Oldfield	21 2	Antagonist, Mr. Wilson	21 14
Ricardo, Mr. Wilson	21 2	Snowdrift Mr. Ball.....	21 12
Lion's Provider, Mr. Wilson..	21 2	London City, Mr. Torkington ..	21 8
Clayton, Mr. Pickavance	21 2	Lady Stanley, Mr. Pilkington..	20 15
YELLOW.		Peto, Mr. Pickavance.....	20 4
Catherina, Mr. Torkington....	24 7	SEEDLING.	
Leveller, Mr. Hall	22 15	Miss Nightingale, Mr. Walton ..	20 3
Seedling, Mr. Walton.....	22 12	Queen of Trumps, Mr. Orchard ..	19 14
Leader, Mr. Lanceley.....	21 21	Lady Leicester, Mr. Bailey ..	19 13
Drill, Mr. Wilson.....	21 20	Leveller (burst), Mr. Walton ..	27 5

This show was numerously attended, and the fruit was exhibited in beautiful condition, as were also many of the seedlings received for inspection, a full description of which is given in the *Gooseberry Growers' Register*, just published.

CHARLES LEICESTER.

Macclesfield.

The Crystal Palace Horticultural Exhibition.

WE subjoin, from the *Gardeners' Chronicle*, part of the report of the above exhibition, which took place on Wednesday, the 9th of September.

In collections of twelve stove and greenhouse plants, Mr. Peed contributed the handsome *Pleroma elegans*, *Allamanda grandiflora*, and others, *Dipladenias*, *Vincas*, *Heaths*, *Rondeletias*, and *Cyrtoceras reflexum*. Mr. Taylor produced *Pleroma elegans*, a plant we are glad to see beginning to claim some attention; *Allamanda grandiflora*, *Begonia Prestonensis*, and an *Ixora*. Messrs. Baxendine and Epps also showed in this class. Among Mr. Baxendine's plants were *Hoyas*, *Gardenia florida*, *Æschynanthus*, *Dipladenias*, *Allamandas*, and *Clerodendron Bungei*. The last with fine heads of pink flowers.

Variegated plants, in the amateurs' class, were shown in fine condition, by Mr. Young, of Denmark Hill; Mr. Morris, gardener to Coles Child, Esq.; Mr. Oubridge, Rhodes; and others. Among the sorts, were *Tillandsia zebrina*, *Hoya carnosa variegata*, *Cissus discolor*, *Dioscorea discolor* (a handsome species), *Diefenbachia maculata*, *Crotons*, and variegated *Hydrangeas*. Some of the last exceedingly handsome. Among nurserymen's collections, which were exhibited by Messrs. Jackson, Parker & Williams, and Lee, were exhibited *Sansieveras*, *Marantas*, *Yuccas*, *Caladiums*, *Aspidistrum luridum variegatum*, *Coleus Blumei* and *pectinatus*, *Pavettas*, *Tradescantias*, *Begonia picta*, *Vriesia speciosa*, and *Ficus leuconeura*.

Of plants remarkable for fine foliage, the best collections came from Messrs. Parker & Williams, who sent, amongst other things, Palms of different kinds, *Dracænas*, Norfolk Island Pines, *Philodendron pertusum*, *Puya Bonplandi*, and *Rhopalas*. Messrs. Jackson had *Berberis trifurca*, Palms, *Cordyline australis*, *Rhododendron Falconeri*, and a *Cycas revoluta*. Among other fine-leaved plants, was *Solanum purpureum*, shown by Mr. Cutbush. Messrs. Rollisson had a beautiful plant of *Begonia rex*, under a bell-glass, with large leaves, beautifully ornamented with broad silvery markings.

Japan Lilies, from Mr. Cutbush and others, were greatly admired by all who saw them. Though perfectly hardy when well grown, as these were, they form striking objects in pots, and for the decoration of the conservatory or cool greenhouse at this season, nothing could possibly be more suitable. *Rubrum* or *speciosa* is the most showy; but for the sake of variety, *punctatum* and the common white kind should not be forgotten.

Cut flowers consisted of Roses, Hollyhocks, Asters, Verbenas, and Dahlias. The latter, owing to the rains we have lately experienced, were shown in very fine condition, and in great numbers, the principal growers from all parts of the kingdom being present. There were ten collections, each consisting of fifty blooms. The first prize was awarded to Mr. Turner of Slough, whose blooms were beautifully formed, and admirably matched, as regards size, thereby giving a completeness to his stand which it would not otherwise have possessed. Mr. Keynes, of Salisbury, was second, with fine large flowers, but little inferior to those just named. Mr. Barnes, Stowmarket, was third. Fourth, equal, to Mr. J. Sealey and Mr. Kimberley, Coventry. In the class of twenty-four varieties, for amateurs only, the competition was equally well sustained. The three first stands, which were all from the neighbourhood of Norwich, deserved all that could be said, each bloom being a specimen in itself. The first prize was awarded to George Holmes, Esq., Brook Lodge, near Norwich;

the second to the Rev. C. Fellows, Shottisham Rectory, near Norwich; third, Mr. Grant, gardener to R. Fellows, Esq., Shottisham Park, near Norwich; fourth, Mr. J. C. Perry, Castle Bromwich, Birmingham, and several extra prizes were awarded. In fancy varieties, equal first prizes were awarded to Mr. C. Turner and Mr. J. Keynes; second, Mr. Barnes; and third, Mr. Legg. The Rev. C. Fellows, Mr. Perry, and George Barrett, Esq., exhibited fine stands in this class. In these exhibitions, the following blooms were very perfect, viz., Lady Popham, Cherub, Midnight, Touchstone, Satirist, Bessie, Colonel Windham, Dr. Gully, Empress, Grand Sultan, Lord Palmerston, Lollipop, Lady Franklin, Lilac King, Lord Bath, Miss Caroline, Miss Spears, Miss Burdett Coutts, Pandora, Perfection, Pre-eminent, Rachel Rawlings, Robert Bruce, Sir C. Napier, Sir J. Franklin, Sir R. Whittington, Yellow Beauty, Roland, Duchess of Beaufort, Harbinger, Admiral Dundas, Beauty of Slough, Chance, Constancy, Deutsche Zierde, Eclipse, Omar Pacha, Mr. Seldon, Princess, Royal Scarlet, Salvator Rosa, and Sir F. Bathurst. The following fancies were also good:—Cleopatra, Admiration, Baron Alderson, Iphigenie, Butterfly, Charles Perry, Conqueror, Duchess of Kent, Enchantress. Fancy King, and Florence Nightingale. To seedlings, no awards were apparently made; nevertheless there was a fine display of new varieties. King (Rawlings) is new in colour—fawn shaded, finest shape. Major Fellows (Grant), lilac, a large full flower, of fine form and great depth. Mrs. Church, yellow, tinged red, with close high centre and fine form. Venus (Rawlings), blush, small, but fine form. Village Gem (Green), white, tipped with crimson, delicate and excellent shape. Canary (Fellows), pale yellow, also perfect form. General Havelock (Fellows), scarlet. Miss Watts (Turner), white. Alice Downie (Keynes). Miss Pressly (Turner), fine light white. Jupiter (Rawlings), fine dark fancy. Cynthia, Mr. Critchet, Tiger, Invincible, Mrs. Boshel, and Sir J. Watts were also good.

Tulip Planting and Protecting.

MR. EDITOR,—If you have a short space at liberty, in the October number of the *Midland Florist*, I shall feel obliged by your inserting a few brief remarks I have to make on this interesting subject. My observations, this time, will be very short; I have no hard jaw-breaking words to advance, or long story to relate, further than to say to every Tulip fancier who may not be over-charged with knowledge—whether on the Lea Bridge grounds or elsewhere, no matter—just try for one season the plans laid down by me, in previous numbers. They are plain and simple. If I were to write for seven years to come, I could not do them better, or recommend a better system. Make your beds ready for receiving the bulbs next month, *November*, and plant on dry days, if possible. In the mean time, my most particular advice is, *prepare, prepare, prepare* yourselves with *suitable covering*, should occasion require, from the *time of planting*. I have, in previous articles, advised according to soil and situation. If heavy stiff soil, on a clayfast bottom, keep off all rain, from the time of planting up to February or March, and then allow it but sparingly. Where the beds are a loose light sort of soil, on a gravelly or stony bottom, in a few weeks after planting, allow a little, but not too much, or overpowering heavy rain, till the foliage appears above ground; and on all and every occasion, I say, *protect, protect, protect* against frost. If you are anxious to get fine healthy sound bulbs, and wishful to see a bloom something like perfection, put your covering on the first night after planting. Take it off, or roll it up as soon as you like in the morning; but, from planting till the day you see them in colour, never risk them a single night. Rainy or fair, frosty or mild, cover, cover, and protect. This is no theory, no imaginary stuff, nothing borrowed from any man's tales or writings. I have passed my life in trying experiments, some for loss and some for gain, and I will venture to say, that

for the last ten or twelve years, with the single exception of last season, which, while I live, I shall ever remember, I do not suppose any man surpassed me in the art of Tulip growing; at all events, I have not met with one, in my travels. Mind, I do not say that such a thing may not have occurred, neither am I at all wishful to set myself up as knowing more than other men. No; none of that. As a humble individual, 'desirous of doing good, or being of service in this matter, I gratuitously offer my advice to all who choose to take it, and those who do not, are quite at liberty to follow their own plans, or those of other parties. Time, with patience, proves men and things. I trust these few lines, coupled with what I have previously given, will, in time, be of service to your numerous inquirers.

J. HEPWORTH.

*Hendries Gardens, Lea Bridge-road,
N.E. London.*

Mr. Slater and the National Tulip Show.

MR. EDITOR,—I should have treated Mr. Slater's tap-room jargon with the contempt it merited, had he not attempted to convince the public that I had swerved from the truth, and that to serve a base purpose. My only motive was to render a little service to my brother amateurs, interested in the Tulip, who were unable to attend the exhibition; and I am pleased to be able to state that I have received the thanks of many of them, which far outweighs what Mr. S. has had to say in your pages, and which certainly bears out one of my statements, that "truth is truth." I am an ardent lover of truth, in all its bearings, it is so pleasantly convenient to men troubled with short memories, and, no matter how those may rave who do not love it, it is never ashamed of itself.

Mr. S. has certainly made a most ludicrous attempt to chastise me, and has really astounded the greater

portion of the floricultural public, by stating that he has a desire "to do justice to all." His old motto was "Be just and fear not," and if he had always strictly adhered to it, it would have been well for many. With respect to Mr. Willison's seedlings, on which Mr. S. says "we chiefly disagree," why did he not state the truth, and say that his opinion of them was grounded on Mr. Willison's refusing to exchange seedlings with him, some years back? I am in possession of a letter, the first I ever received from Mr. W., confirming this statement. This speaks volumes as to Mr. S.'s singular way of doing justice to all. Why did he omit to mention Duchess of Sutherland, Queen of Sherwood, and other fine sorts, which, had they been in his possession, would have been *stars* of the first magnitude, and would have been flourished at five pounds each? He certainly miserably attempts to drag Earl of Warwick into notice. I have a letter from a gentleman who grows it, and he says "it is anything but good." Mr. S. rates this at twenty-one shillings. Justice again! And does Mr. S. consider it either truth or justice to assert, as he does, at page 257, that "the collections of many exhibitors were not in bloom," when, in fact, the generality of the rectified blooms were too old, and the petals fell from many of them, during the afternoon? This I look upon as an excuse to lean back on, when questioned as to why he did not exhibit the new *stars* he has so ingeniously attempted to palm upon the public. Shame! shame! As to some of the sorts Mr. S. raves about, I should have departed from my usual course, had I attempted to describe varieties that were not in the room. Charles Albert and others I could not admire. On referring to my notes, I find Mr. Ashmole's seedling bizarre breeder noticed, and how it escaped being copied I am quite unable to say, though certainly not from any base motive, or ill feeling, for I must say that I always respected Mr. Ashmole as an honest man. I have now replied to Mr. S. at greater length than I intended, and do not feel called upon to pursue the matter further,

than to tell him I shall not be drawn into any controversy to serve a dishonest purpose, or assist in reaping an harvest out of the public by any such means. If I have entered upon a new career, I trust it will be one of usefulness to my fellow men, and of which I shall always discharge the duties in honesty and truth; and so long as conscience whispers "all right," I shall jog contentedly on, regardless of the frowns or bickerings of those who would ride roughshod over truth.

JOHN WALKER.

Winton.

We trust this controversy will now cease. We think our readers will agree with us, that enough has been said on the subject.—Ed.

Pruning Flowering Shrubs.

PRUNE Roses and Honeysuckles; and October is also a proper time to prune all other sorts of flowering shrubs and evergreens. Let this pruning be performed with a sharp knife, and not with garden shears, as is sometimes the practice. Cut out and prune to order any very long rambling luxuriant shoots, of last summer's growth, which are often produced on many sorts of flowering shrubs, and ramble considerably out of bounds. Prune them either close to whence they proceed, or shorten them, as may seem most expedient. When a branch advances in a straggling runaway manner from the rest, cut it shorter, observing generally to prune it close to a bud, or any young lateral shoot, leaving the bud or shoot for a leader to the branch. Where branches of different shrubs interfere with each other, prune or shorten them, as you shall see necessary, so that each shrub may stand clear of the other. where any branches or shoots are too near the ground, prune them close up to the stem, to keep it clear below, and the head continued in some regularity above. All suckers which rise from the roots should be taken clean

away; and the shrubs should generally be kept to a single stem below, near the ground. When you have finished pruning, clear away the cuttings, and let the ground between the shrubs that stand wide be well hoed and raked, or neatly digged, one spade deep; and as you proceed with the digging, cut off any very long straggling roots, and take up all suckers.

FUMIGATION.—I have found the following simple and effectual for destroying greenfly, in houses, or on plants out of doors. Procure some coarse brown paper, and cut it into squares, as if for pockets, say sixteen to twenty inches. Soak these in a solution of saltpetre (a quarter of a pound will make forty), and dry them in the sun, or near the fire; but they must not be dried too much. On these spread some small or dust tobacco (two ounces will make twelve), roll them as you would a Roman candle or rocket, and they are fit for use; but they must be tied in the middle, and not at the ends. To fumigate a house, pit, or frame, place them across small pots (sixties), and light each end. A dozen will be sufficient for a house, thirty feet in length, and they will not require any attention after lighting. For standard Roses, or any other single plants, I have a bag, on a frame, which I draw over them, place my lighted rockets underneath, and the process is soon completed. Ladies may use them, as they are not required to be in the smoke.—I saw this, some time since, and tried it, and shall always use it, till something better is found out.—H. DAVIES.

GARDEN LABELS.—We have received specimens of neat and cheap garden tallies, useful to every gardener. The only drawback is their being manufactured in North Britain, by Mr. Thomas Inland, and the cost of carriage would be considerable.

OPINIONS ON FLOWERS.—T. L., *Stamford*.—Your seedling Fuchsia is very large, and the colours well contrasted. Considering the disadvantage under which the plant has flowered,

it will be well to try it another season. Under more favourable cultivation, great improvement might be expected. By all means keep it. To ripen the wood, expose the plant to the sun, with plenty of air.—JOHN DOBSON.—We have seen a white seedling Dahlia, unnamed, raised by J. Richards, Esq., Basford Cottage. It is of excellent form. The colour is also good, and it is decidedly the best white Dahlia we have ever seen.

ANSWERS TO QUERY.—J. M., *Newark*.—The following twelve Cinerarias are cheap and handsome :—Attraction, Duchess of Wellington, Exquisite, Kate Kearney, Lady Camoys, Lady Paxton, Lord Stamford, Magnum Bonum, Optima, Picturata, Sir C. Napier, and Scottish Chieftain.—A correspondent wishes to know why the foliage of his Fuchsias decays, immediately they have done flowering. It is either from bad drainage, too much water, or too little water, but our correspondent will best judge of his treatment.

Notes for the Month.

AURICULAS in pots, must be removed to a dry sheltered situation, where protection from sharp winds, snow, and wet can be afforded ; for, although Auriculas are perfectly hardy, still, with a little protection, they are preserved in a sounder state of health. Keep the plants clear of decayed leaves.—THOMAS GIBBONS, *Bramcote*.

CINERARIAS.—The early-blooming plants should be repotted into their blooming pots, using rich soil. They must be kept near the glass, and receive plenty of air at every favourable opportunity. Seedlings and other young plants may be potted as they require it. Remove at all times fogged leaves as soon as they appear. Stop back those that are required to flower later. Carefully watch for mildew and greenfly.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

FLOWER GARDEN.—This is the most suitable time for planting almost all sorts of bulbous roots, which have been taken up during summer. Hyacinths and Tulips for the general spring bloom may be planted either in beds, by themselves, or in the flower border. The choicer varieties should be planted by themselves, that protection from heavy rains may be afforded. Anemones, Crocuses, Snowdrops, and Aconites may be planted, placing the bulbs from one and a half to two and a half inches deep. The various sorts of Irises, Jonquils, Narcissus, and Lilies may also be planted to advantage. Raise the earth round

Dahlias, to prevent frost from injuring the roots. As soon as the stems are cut down by the frost, take the roots up. Many persons let them remain, as they say, to ripen. When taken up, place them with the stems downwards, to allow them to drain.—**RICHARD EDWARDS, Nuthall.**

FRUIT GARDEN.—Winter Pears and Apples must be gathered as soon as ready. To try if they are ripe, turn several upwards, in different parts of the tree, and if they quit the tree easily, it is a sign they have attained maturity. None of the more delicate Pears should be left to hang later than the middle of the month. Towards the latter end of the month, you may safely transplant most sorts of fruit trees. In planting, you should take care to leave plenty of room for advancing growth, for many years to come. The distance between Peaches, Nectarines, Apricots, and other wall fruit should be at least twelve or fifteen feet. Pears and Apples, as espaliers, should be planted fifteen or eighteen feet apart. Gooseberries and Currants may be transplanted any time this month.—**J. FROST, gardener to J. T. Edge, Esq., Strelley Hall.**

FUCHSIAS.—Last month's directions will suffice for this month, being careful that all plants are properly labelled, before placing them in their winter quarters. Old plants that are out of doors and require to be saved, should be taken up and potted, or they may be protected from frost by placing a layer of ashes about three inches over the plants.—**JOHN DOBSON, Woodlands Nursery, Isleworth.**

GREENHOUSE.—Remove all tender plants into the greenhouse provided it is not already done. Before being taken in, let all the heads be cleaned, decayed leaves picked off, and unequal shoots trimmed in, stirring up, at the same time, the earth on the top of the pots. They should then be nicely arranged, according to height. By mixing the different varieties together, as you stage them, a very pretty contrast may be formed. Admit air freely on all favourable occasions.—**EDWARD KEYS, gardener to F. E. Shipley, Esq., Hempshill Hall.**

KITCHEN GARDEN.—A few Peas may be sown at the latter end of the month, to produce a crop in May or June. Early Emperor and Dan O'Rourke are good sorts. A south border, under a wall, is the best situation. Plant out Lettuce, in beds, in a sheltered situation, for cutting before and after Christmas. Cauliflowers should be transplanted into their proper beds, three or four inches asunder, in frames. Put on the glasses for a week. Endive should be tied up, to blanch. Asparagus should be cut down and the beds dressed. Earth up Celery as required.—**JOHN BEARDMORE, gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.**

PANSIES.—If not previously done, new beds should be made not later than the second week in the month, as the plants

should be a little established before the winter. Pot up any sorts that are sickly, and such as are intended to be grown in pots. Occasionally look over them, to stop the ravages of slugs, which are very busy at this season of the year. Those in frames must have abundance of light and air.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—The specimen plants, intended to flower in May, should be repotted into their blooming pots, early in the month. In potting, use the mould previously recommended. Shift any young plants that require it. Keep the house close for a few days, just to start them. Stop such young plants as are getting tall. Water sparingly, and if the weather is cold and damp, light a fire occasionally, to get the heating apparatus in order, in the event of frost setting in suddenly. It will not do then to have to see to repairing pipes, flues, or such other means as are used for heating. Persons intending to add varieties to their collection will find this the best month to procure them, as the best plants may be had.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

ROSES.—Little remains to be done to standard or other outdoor Roses, this month, beyond seeing that they are well staked and tied. Select at once, from the nursery, such plants as may be wanted for new plantations, or to make good old ones, for it is first come best served. If not already done, the blooming plants in pots should be shifted early, and placed in cold frames. Those done early may be placed in the greenhouse and brought on gradually. The teas and Chinas are best for winter blooming. Young stock should be got into winter quarters. Cuttings of noisettes, teas, and Chinas may be struck, either under hand-glasses, on a dry and shady border, or in cold frames or pits, placing the cuttings thickly round the edges of pots, there to remain till spring, when most of them will be found well rooted.—H. DAVIES.

STRAWBERRIES.—Owing to an accident, which did not occur until too late for remedy, we are unable to give Mr. Nicholson's Strawberry culture.

Floral Exhibitions.

SOUTH CHESHIRE TULIP SHOW.

This celebrated exhibition was held at the house of Mr. Merrill, the Hawk Inn, Haslington, on the 30th of May, and a better display of blooms was never seen in that neighbourhood.

Premier Prize.—Agnes Beaumont, Captain I. G. Heap.

Premier Maiden Prize.—Charles X., T. Bailey.

Best Flamed Flower.—Aglais, Captain I. G. Heap.

Feathered Bizarres.

- Steward's Prize.—Charles X., J. Steel
 1 Earl Richmond, Captain I. G. Heap
 2 Standard of Perfection, C. Johnson
 3 Waterloo, ditto
 4 Polyphemus, Captain I. G. Heap
 5 Optimus, ditto
 6 Magnum Bonum, C. Johnson
 7 Duke of Devonshire, ditto

Flamed Bizarres.

- Steward's Prize.—Polyphemus, S. Allcock.
 1 Polyphemus, Captain I. G. Heap
 2 Hampden, C. Johnson
 3 Charles X., J. Steel
 4 San Joe, Captain I. G. Heap
 5 Vivid, S. Allcock
 6 Caliph, Captain I. G. Heap
 7 Magnifique, J. Steel

Feathered Bybloemens.

- Steward's Prize.—Maid of Orleans, G. Blackshaw
 1 Comte de Flanders, J. Steel
 2 Violet Quarto, ditto
 3 La Pucelle, Captain I. G. Heap
 4 Grace Darling, J. Steel
 5 Washington, S. Allcock
 6 Bienfait, T. Bailey
 7 Elegans, J. Steel

Flamed Bybloemens.

- Steward's Prize.—Alexander Magnus, C. Johnson
 1 Violet Waller, Captain I. G. Heap
 2 Edgar, G. Blackshaw
 3 Rubens, Captain I. G. Heap
 4 Lady Flora Hastings, S. Allcock
 5 Violet Brun, Captain I. G. Heap

- 6 Van Amburgh, C. Johnson
 7 Queen Charlotte, Captain I. G. Heap
Feathered Roses.
 Steward's Prize.—Mary Lamb, J. Furnival

- 1 Heroine, S. Allcock
 2 Matilda, C. Johnson
 3 Mrs Dixon, Captain I. G. Heap
 4 Queen of Scarlets, J. Steel
 5 Andromeda, ditto
 6 Comte de Vergennes, ditto
 7 Lady Crewe, S. Allcock
Flamed Roses.

- Steward's Prize.—Clio, G. Careless
 1 Clio, Captain I. G. Heap
 2 Unknown, ditto
 3 La Vandicken, T. Bailey
 4 Triomphe Royale, W. Steel
 5 King of Saxony, Captain I. G. Heap
 6 Lady Stanley, S. Allcock
 7 Aglaia, Captain I. G. Heap
Bizarre Breeders.

- 1 Charles Albert, Captain I. G. Heap
 2 Polyphemus, C. Johnson
Bybloemen Breeders.

- 1 Enchantress, J. Steel
 2 Prince Albert, C. Johnson
Rose Breeders.

- 1 Lord Derby, Captain I. G. Heap
 2 Kate Connor, C. Johnson
Yellow Selfs.

- 1 Min d'Or, C. Johnson
 2 Min d'Or, W. Blackshaw
White Selfs.

- 1 White Perfection, J. Steel
 2 White Perfection, C. Johnson

NOTTINGHAM HORTICULTURAL SOCIETY.

At the Exchange-rooms, Wednesday, June 3d.

Twelve Dissimilar Tulips, Four of each Class.—1. Rev. S. Creswell, for Merit, Sir J. Paxton, Groom's Albion, Strong's King, Sarah Ann, Maid of Orleans, Princess Royal, Orleans flamed, Rebecca, Seraphine, Vicar of Radford, and Triomphe Royale. 2. Mr. Thomas Gibson, Nottingham, for Duke of Devonshire, Truth, Royal Sovereign, Duke of Lancaster, Washington, Washington flamed, Britannia, General Bournonville, Rose Aglaia feathered, Aglaia flamed, Heroine, and Triomphe Royale. 3. Mr. John Ward, Nottingham, for Sovereign, Merit, Lord Milton, Magnum Bonum, Maid of Orleans, Sancta Sophia, Queen Charlotte, Princess Royal, Heroine, Aglaia, Triomphe Royale, and Rose Unknown. 4. Mr. W. R. Lymbery, Nottingham, for Sir J. Paxton, Sanders's Vivid, Lord Lilford, Polyphemus, Nepaulese Prince, Princess Royal, Lord Denman, Prince Elie, Triomphe Royale, Rose Imperial, Aglaia, and Haywood's Magnificent.

Three Feathered Tulips, One of each Class.—1. Mr. Thomas Gibson, Nottingham, for Omar Pacha, Rose Aglaia, and Abbott's Gem. 2. Mr. W. R. Lymbery, Nottingham, for Lord Lilford, Prince Elie, and See ling.

Three Flamed Tulips, One of each Class.—1. Rev. S. Creswell, for Merit, Miss Edgeworth, and Bloemart. 2. Mr. T. Gibson, Nottingham, for Lord Lilford, Allen's Miss Catherine, and Sarah Ann. 3. Mr. W. R. Lymbery, for Donzella, Lord Denman, and Vicar of Radford. 4. Mr. T. Gibson, for Polyphemus, Triomphe Royale, and Princess Royal. 5. Rev. S. Creswell, for Polyphemus, Sarah Ann, and Seedling. 6. Rev. S. Creswell, for Father Gavazzi, Chellaston Beauty, and Prince Elie. 7. Mr. T. Gibson, for Pilot, Baguet, and Aglaia. 8. Rev. S. Creswell, for Vicar of Radford, Sir J. Paxton, and Lord John Russell.

Twenty Distinct Blooms of Pansies.—1. Mr. S. Taylor, Nottingham, for Nonpareil, Primrose Perfection, J. B. Gough, Miss Walker, Sarrolin, Pomona, Princess, Tyrus, Jemour, Phoenix, British Queen, Ariel, Colonel Windham, France Cyclole, Sir R. Whittington, Mark, Beauty, Yellow Model, Glendower, and Sir Colin Campbell. 2. Mr. W. Roland, for Beauty of Perth, Miss Dodwell, Owen Glendower, British Queen, Sir Philip Sidney, Seedling, France Cycole Bessy, Medora, Sir Colin Campbell, Gavazzi, Memnon, Miss Walker, Sir J. Paxton, Countess of Strathmore, Lady Carrington, Mrs. Thompson, Seedling, Marion, and Emperor.

Six Greenhouse Ericas.—1. Messrs. Small, for Hymalis, Ventricosa superba, Westpalingia, Beaumontia, Saureleus superba, and Perspicua nana.

Four Orchideous Plants.—1. J. I. Marfleet, Esq., for Oncidium Hartwegii, Oncidium flexuosum, Oncidium papilio, and Cattleya mossiae.

Six Pelargoniums.—1. Messrs. Small, for Colonel Fawcett, Magnificent, Adele, Chloe, Fulcheranium, and Lena.

Six Fancy Pelargoniums.—1. Sir T. G. A. Parkyns, Bart., for John Bull, Richard Cobden, Lady Hume Campbell, Empress, Celestial, and Advancer. 2. Messrs. Small, for Evening Star, Criterion, Eulalie, Cloth of Silver, Madame Webbe, and Cassandra.

Six Scarlet Pelargoniums.—1. Messrs. Small, for Collin's Superb, Cerise unique, Sir Charles Napier, Compactum, Hendersonii, and Kingsbury Pet.

Six Fuchsias.—1. Mr. R. J. Beard, for Duchess of Lancaster, Queen of Hanover, Nil Desperandum, Diadem of Flora, Clio, and Don Giovanni.

OXFORD CARNATION AND PICOTEE SOCIETY.

In the garden of Mr. W. Colcutt, St. Aldate's, July 23.

CARNATIONS.

Scarlet Bizarres.

- 1 Admiral Curzon, Mr. Maltby
- 2 Admiral Curzon, Mr. Colcutt
- 3 Admiral Curzon, Mr. Cook
- 4 Admiral Curzon, Mr. Walker
- 5 Admiral Curzon, Mr. Plaister

Crimson Bizarres.

- 1 Hardman's Splendid, Mr. Walker
- 2 Hardman's Splendid, Mr. Colcutt
- 3 Misnomer, Mr. Plaister
- 4 Puxley's Queen, Mr. Cook

Pink and Purple Bizarres.

- 1 Falconbridge, Mr. Kirtland
- 2 Ward's Sarah Payne, Mr. Maltby

Scarlet Flakes.

- 1 Exit (May), Mr. Colcutt
- 2 Christopher Sly (May), Mr. Walker
- 3 Christopher Sly (May), Mr. Maltby
- 4 Chadwick's Brilliant, Mr. Cook

Rose Flakes.

- 1 Uncle Tom, Mr. Cook
- 2 Ely's Lovely Anne, Mr. Kirtland
- 3 Ariel (May), Mr. Colcutt
- 4 Ariel (May), Mr. Plaister

Purple Flakes.

- 1 Netherwood's Companion, Mr. Cook
- 2 Jenny Jones, Mr. Kirtland
- 3 Beauty of Woodhouse, Mr. Maltby

PICOTEE.

Light edged Red.

- 1 Eugenia, Mr. Payne
- 2 Miss Holbeach, Mr. Williams
- 3 The Gem, Mr. Walker
- 4 Eugenia, Mr. Kirtland

Heavy-edged Red.

- 1 Dr. Pitman, Mr. Maltby
- 2 Mrs. Norman, Mr. Colcutt
- 3 Dr. Pitman, Mr. Payne
- 4 Mrs. Norman, Mr. Cook

Light-edged Purple.

- 1 Payne's Eliza, Mr. Payne
- 2 Payne's Eliza, Mr. Stevens
- 3 Amy Robsart, Mr. Kirtland
- 4 Countess of Waldgrave, Mr. Colcutt
- 5 Haidee, Mr. Cook

Heavy-edged Purple.

- 1 Nelson, Mr. Colcutt
- 2 Nelson, Mr. Maltby

- 3 Nelson, Mr. Kirtland

- 4 Fellowes's Countess, Mr. Payne

Light-edged Rose.

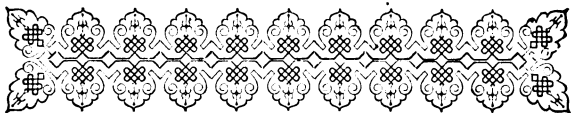
- 1 Seedling, Mr. Payne
- 2 Marris's Bertha, Mr. Maltby
- 3 Lady Harriet Peel, Mr. Walker
- 4 Dodwell's Turner, Mr. Kirtland

Heavy-edged Rose.

- 1 Venus, Mr. Cook
- 2 Venus, Mr. Colcutt
- 3 Venus, Mr. Payne
- 4 Venus, Mr. Walker
- 5 Venus, Mr. Maltby
- 6 Seedling, Mr. Kirtland

Intermediate Edge.

- 1 Mrs. Hedley, Mr. Maltby
- 2 Mrs. Drake, Mr. Payne
- 3 Seedling, Mr. Kirtland
- 4 Prince Arthur, Mr. Walker



NOVEMBER.

The New Geraniums.

IF reference is made to my remarks on the new Geraniums of last season, in an early number of the present volume, those who attended the exhibitions, or have seen reports of the various shows, will observe that I have not in any way misled those who have purchased upon my recommendation. The desire to be of service to the readers of the *Midland Florist* induces me again to report my opinion of the best flowers coming out this autumn, and give the result of my memorandums, taken at the exhibitions. By the end of October, about thirty-four varieties, considered to be new, will have been received by most of the leading florists in the kingdom, and many of these have never been seen by any one of the purchasers, certificates, the raiser's name, high prices, and the vender's description (and there is an unavoidable sameness in that respect,) being considered a sufficient guarantee. Full reliance has hitherto been placed on my judgment, and I venture to hope it will continue. I am not led away by colour, habit, or any one point alone; my aim is to procure for the amateur a plant, possessing all the good qualities combined. What is colour, if the plant is of bad growth—difficult to propagate? or what is the use of a plant with fine foliage, if deficient of bloom? And further, my desire is that the amateur may possess a variety which requires no artificial dressing, but will open sufficiently to show the whole of the flower, without having to turn each petal back. Why is not a reflexed Geranium as great a fault as a reflexed Dahlia?

It is possible to produce varieties without the disposition to cup, or requiring each petal to be rolled back. I could enumerate many sorts, sent out at high prices, which are not worth looking at, before they are dressed, though they certainly pay for the extra trouble bestowed on them; but, if possible, let us keep to the form of Hoyle's *Leonora*, as every one has not the time, or the inclination either, to go over all the flowers, to place them. But to return to my subject. The new varieties, this season, are numerous and good, and those I have selected, are, without doubt, the best yet raised. I should very much like to see the whole of them exhibited in one collection, to show the *Geranium* still improves, and that there is yet much room for improvement, no one will deny. The following varieties I have seen, and will describe them as minutely as possible.

Amelia (Beck).—Very large rosy purple flowers. Rich marone spot on the upper petals, a very clear white centre, a free bloomer, and good habit. Much admired, and will make a useful plant for exhibition.

Bellona (Beck).—A novelty in colour, being an almost transparent scarlet crimson, a colour difficult to describe. A very free bloomer, and dwarf habit. Quite new.

Competition (Foster).—A large crimson flower. Upper petals very dark, with bright margin, fine quality (always observable in this gentleman's flowers), good shape.

Candidate (Hoyle).—Lower petals rose, tinged with orange, which gives the flower a very lively appearance. Upper petals marone. Will make a useful variety.

Etna (Turner).—Lower petals orange scarlet, deep marone top petals, good shape, appeared a free bloomer, habit rather similar to *Meteora*. If it does not sport, it will make a very striking variety, being a distinct colour.

Empress Eugenie (Story).—Pure white lower petals, upper petals having a medium size cherry-coloured spot, good shape, and very free bloomer. It was much admired at the Regent's Park show, this season.

Fairest of the Fair (Beck).—Another white flower, and, although possessing the same coloured spot as the last named variety, it is very distinct, and will make a most useful sort, blooming as freely as the fancy varieties. The flowers and truss are large, and the habit good.

Julia (Dobson).—Bright salmon lower petals, with white centre; rich marone upper petals, with a margin of salmon; fine shape, free bloomer, and excellent habit. A fine variety for exhibition.

Rosy Gem (Turner).—Distinct in colour. Lively rose lower petals, with marone blotch on upper petals, white centre, good shape, large, and good habit.

Rose Celestial (Turner).—Large bold flower. Soft rose lower petals, deep marone blotch on the upper petals, free bloomer. Will make a useful show variety.

Richard Benyon (Hoyle).—Orange crimson lower petals, very dark blotch on upper petals, good shape and habit, distinct.

Signora (Beck).—Lower petals rosy purple, with pure white; upper petals deep marone, with a narrow margin of the ground colour; good shape and free bloomer. A desirable variety for exhibition.

Rosalie (Dobson).—A sufficient recommendation will be to say that it is a great improvement on Governor General, an old and popular variety.

I shall also be much surprized if some of the following do not take first places, in addition to those I have described. Lucifer, Constantine, Imperatrice, Belle of the season, Minnie, Sue, and Vestal, have all several good qualities to recommend them. Let us hope that we may see every variety sent out this season exhibited next, at the principal shows. In addition to those enumerated, there are a few new and desirable spotted varieties. Fancy, a dwarf sort, light, with rosy purple spots, will be useful, the plant, when in flower, forming a perfect bouquet. Mazeppa and Charmer, dark varieties, with spots, are also very good, and an acquisition to this popular section of Geraniums. Fancy Geraniums have greatly improved, the last few years. A list of the best yet introduced will be prepared for next month's number.

JOHN DOBSON.

Woodlands Nursery, Isleworth.

Pink Growing and Tulip Protecting.

IN the *Midland Florist* for October, I find two articles from the pen of Mr. Cunninghame. One of these is on the *Ranunculus*, the other on the Pink. Now, although I have not had much experience in growing

the former, I have had not a little in growing the latter, and, though late in the season, with your permission, I will favour the readers of the *Midland Florist* with that experience, which they will find differs a little from your correspondent, Mr. C.

As early in the month of August as is in your power begin to to prepare your Pink bed, by turning it over pretty deep, and forking into it two or three inches of well-rotted manure. After doing this, spread over the surface some newly-slaked lime, and at the same time take some Carrots, or scoop out some Potatoes, and put them under slates or tiles, on different parts of the bed, for the purpose of catching the wireworms and other pests of the Pink and Pansy. Examine these traps every second or third day. About a month after your first turning over the bed, turn it over again, and arrange for planting as near the middle of September as possible. Put in your plants (which, by this time, ought to be well rooted) about nine inches apart (six is far too little room to grow them well), and about a foot between the rows. After finishing planting, replace your wireworm traps, and also lay a few Cabbage leaves on the surface of the bed, to preserve your plants from the ravages of the snails. Examine these traps frequently. If, after planting, the weather should be dry, give them, once or twice, a little water; and if worms should begin to throw up the soil, put a lime shell in a tub of water, and after it has settled down, pour off the clear water, and, with a common garden pan, water the bed with it, and you will soon get rid of the worms. After this, the plants will require no attention, till spring, except after frost, when they will require examining, and if any have been thrown out of the soil, press them down with your hand. I would, however, strongly advise all Pink growers to reserve in small pots at least one plant (a pair, if possible) of each variety, to fill up any vacancies that may occur in their beds, in spring.

About the middle of March, if the weather be open, begin to look after your plants, removing all those that

are weakly, and all decayed leaves. Then give the bed a top-dressing of the best decayed cow dung that you have, gently forking it in at once, and, from the reserved stock, fill up any vacancies that may have occurred. If the weather be dry, as it sometimes is, during this month and the beginning of April, give them, now and then, a little water, in the morning. During May and June, water them liberally, two or three times a week, and if you have not an abundant supply of rain or river water, fill two or three tubs, out of your well or pipe, in the morning, and let them remain all day in the sun, to bring the water to a proper temperature for using in the evening. And, although Mr. C. has put his veto on liquid manure, I would advise every one who wishes to grow his Pinks to perfection, to give them, during these two months, at least once a week, a *little weak* liquid manure. Put a good spadeful of old cow dung into some of the tubs of water, in the morning, and give them the contents of these tubs, in the evening, and I feel certain that, if your plants are otherwise right, you will have flowers that, both in *ground* and *lacing*, will bear comparison with anything that may come before them. I may also add, that a little nitre (saltpetre), put into water, and used as a liquid manure, I have found to do good service.

The above is the experience of one who grew Pinks for a good number of years, and who, during that period, in different parts of the country, entered the arena of conflict with all classes of growers, somewhere about forty or fifty times, and never once came off second best. My way of blooming, I may give in some future number of the *Midland Florist*.

I have also been a Tulip grower from boyhood, and know what it is to have disease in my collection; but I would as soon think of boarding over the moon, on a December night, lest its light should hurt my eyes, as boarding over my Tulip bed, in the way Mr. C. recommends. See that the bed is constructed on proper principles, with a free open bottom, and then let them have all the rain or snow that the heavens are pleased

to send, and I feel persuaded it will do them no harm. In spring, when they are beginning to point through the ground, let them be protected with a net, and continue it till it is time to put on the blooming cover, and that, I think, is all the protection they require; any other covering, in my opinion, is only preparing them for disease, which Mr. C. will, perhaps, soon find, to his cost. The disease which, for a few years past, has fallen upon the Tulip, seems to me to be something like that of the Potato, and, like it, still unaccounted for, though, perhaps, in time, we may better learn the laws which govern bulbous roots.

S. E.

Carney.

The Vine and its Culture.

THE Vine has the credit of being the longest-lived and most respected of any known tree: hence our Saviour likened himself to this favourite subject. "I am the Vine," said Christ, "and ye are my branches." There is no record of a Vine dying of old age or natural decay, while there are many instances of remarkable longevity. This subject engaged so much of our attention, years ago, that we hardly know whether we can go far, without robbing ourselves and almost repeating our oldest lessons. The Vine is now grown more artificially than ever. Time was when it was planted in the natural ground, in a good aspect, and left to take its chance; and, if we may believe what we read and hear, the oldest Vines have exhibited no signs of decay or ill health, until the rude hand of man has done violence to their roots or branches, in the progress of improvements or demolitions, in their immediate vicinity. Now, Vine borders must be prepared for its reception, with soil rich in all the qualities that will drive it on, paved at a certain distance beneath the surface, to prevent the roots from going down, and

enriched for a certain distance, to encourage the spreading of fibres. As no one thinks now of trusting to the natural ground, even for out-of-door culture, we shall so arrange the hints we have to give, that they shall relate,

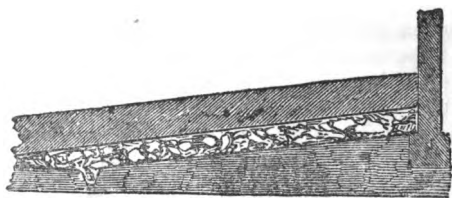
1st, to the food and conditions necessary to grow the Vine in perfection.

2nd, to the habit and the capacity of the Vine, and the consequences of not attending to both.

3rd, to the necessity of providing against those evils which prevent success.

First, then, the Vine is so gross a feeder, that it will live in what would kill many plants. Some idea may be formed of its greedy disposition, when Mr. Roberts, who wrote in 1842, five years after the establishment of the *Gardeners' Gazette*, in which he used to write, actually directs, that besides a soil made up of ordinary richness, with leaf mould, dung, road scrapings, and so forth, we are to add *one good horse or cow carcass to every ten square yards*. No joke this. A moderate border would require some tons of carrion, if these directions were fairly carried out. But this is an extravagance we never did follow, and never would. Dig the border clear out, two feet six deep, next the wall or house, sloping it outwards to three feet six deep, fifteen feet from the wall, which is wide enough for any thing; and such of the soil dug out as may be in good order, may be used again, to the extent of one-half of the quantity required. The other half may be made up of loam, leaf mould, and dung from an old hotbed, in equal parts, and half a part each of chopped turfs and bruised bones,—not bone dust, but bruised and sifted. When this is mixed and ready to return to the border, lay a good six inches of brick rubbish all over the bottom, and ram it down hard and even, see that a drain towards the outer edge is ready to receive the whole drainage of the border, and then fill up, ready for planting. There is nothing extravagant in this border, but the drain towards the front, six inches lower than the bottom, must have a complete outlet,

and a proper fall must be constructed, that no water may lie, under any circumstances. But, as a great number of people desire to grow Vines, and cannot afford so much preparation, let us tell them at once, that if they will drain the border, and trench it two spits deep, and mix bruised bones with it, they will, in nine cases out of ten, succeed. If the Vine is to be grown in a house, it may be worth while taking extra pains, but we cannot recommend them, even then, to cut up a horse or a cow, to mix with every twelve square yards of border, as recommended by Mr. Roberts. There is no doubt that carrion is the strongest, and, perhaps, the most lasting of all manures. The offal from the butchers is useful, the scrapings of a farrier's shop, horns, hoofs, and bones, are excellent dressing, but we think dead horse and cow flesh, within a foot of the surface, would not be half so pleasant as mignonette. In conclusion, we may say, with regard to the borders, a Vine is like a hog, it will luxuriate in any filth or offal; but rely upon it, nothing lasts longer, or excites more, than a large proportion of bruised bones. The border, when ready for planting, will be something like the sketch, except that the depth of the soil above is not represented thick enough, though it represents the brick rubbish and the drain very well, and the wall is also shown in the sketch.



Second, the capacity of the Vine to bear, must depend on the strength of the wood, but the idea of allowing a Vine to be crowded is absurd. A certain quantity will ripen and do well, overload it, and you will have all the unpleasant visitations you can imagine,—

rust, mildew, redspider, and shanking, destroy the value of the crop altogether. There should never be allowed more than one bunch to a shoot, and as there generally come two or three, the sooner you make a selection of the bunch to leave, and remove the other two, the better. This is generally that next the base of the shoot, though there are exceptions,—blight, or other causes, sometimes render it the least instead of the most handsome. Upon reducing the quantity of fruit to the capacity of the Vine depends the quality of the Grapes and the future health of the tree.

Third, the necessity of providing against those evils which prevent success is obvious, for, be it remembered, that although philosophers and professors will give you very long tales about rust and shanking, mildew, redspider, and sundry other annoyances, and pretend to know a good deal about the fungi or other evils that attack a plant, their theories are all smoke. The evils that beset a Vine are EFFECTS, not CAUSES. Let the roots reach stagnant water, or the weather for a time check the growth, or a continued drought, without dews, refuse moisture, and some or all of these evils will befall the unfortunate Vine, the foliage and fruit get into a state that invites the professors' fungi, in the shape of mildew or rust, or shank, or is agreeable to the redspider. In-doors, under glass, men have a good deal of control. They can raise a gentle steam in a house, they can shut out air when it is not to their liking, they can regulate heat, dry a humid atmosphere as easy as they can create it; but much may occasionally be done out-of-doors. The syringe is a useful implement, when long dry days prevail; for nothing contributes more to the health of foliage and crop than a good washing, with the gentleness of a shower, after sundown; nor will any thing keep the Vine clear of all kinds of stray vermin so well and so easily as a little sharp syringing under the leaves. But we are too apt to let out-of-doors matters go on without consideration, until the evil comes. Our notion is, that prevention is better than cure, and some conditions are essential.

The border, indeed the whole ground, must be well drained, for, unless it be so, success for any lengthened period is impossible; particular seasons and circumstances may now and then enable a crop to escape, but there is no certainty and hardly a probability of a good crop. Next, reducing the crop to a moderate quantity is essential, for, giving the tree too much to do, impairs the whole, and the Vine suffers for a season or two afterwards. Mr. Hoare, we believe it was,—we write from memory—only allowed a weight of Grapes according to the diameter of the Vine. This was a bit of theory worthy of the most learned *savant*; for we have seen a pot plant, with nine handsome bunches, of good colour, and full-sized berries, which, according to his theory, ought to have had none; for, in his treatise (so strongly recommended by the late Mr. Leudon), he says, no Vine should be allowed to bear, till the stem is three inches in circumference, and then not more than five pounds weight, whereas not one pot plant in a score is so large, yet many are exhibited with ten or a dozen pounds of fruit well ripened. This comes of writing about things we have not practised, or theorizing upon what we have done, and drawing wrong conclusions, just as a chandler who cleared a hundred pounds a year, in a shop of twenty pounds rental, might flatter himself—having learned the Rule-of-Three—that if a rental of twenty pounds enabled him to clear a hundred, a rental of a hundred pounds would clear him five hundred. We dare engage that Mr. Hoare never proved *that it was necessary* to refuse a crop till the stem was three inches round. He had done so, perhaps, and the Vine did well, but if it had been allowed to bear a moderate crop, it would have been none the worse.

We now come to a consideration of the best

SORTS OF GRAPES FOR OUT-OF-DOORS.

There are some varieties which ripen better than others, and those which, in our estimation, are best

worth cultivating, and yield the greatest encouragement to the grower, are the following:—

Black Hamburg.—Handsome black Grape, with large berry, sweet flavour, and handsome bunches.

Esperione.—Something like the Black Hamburg, and somewhat earlier.

Miller's Burgundy, or Miller's Early Grape.—Smaller bunches and berries, and the berries set closer in the bunch. Colour black, and flavour better than either of the above.

White Muscadine.—Handsome bunches, white, approaching amber, when full ripe. Berries fine and thin-skinned.

Grizly Frontignan.—A brownish red grape, of exquisite flavour. Berries not large, bunches moderate size, rather handsomely formed.

White Frontignan.—Bunches and berries large, greenish white, high flavour, rather handsome.

Black Frontignan.—Berries small and close, bunches in proportion, black, juicy, and high flavoured.

White Sweetwater.—Bunches handsome, berries large and close, skin thin and transparent, pulp juicy and sweet.

Others might be added, but they would be inferior to those already mentioned, and, indeed, we had some doubt whether we should mention the White Sweetwater, having already named the White Muscadine; however, the Sweetwater is an old favourite.

PLANTING THE VINE.

We are to presume the border is properly prepared. We are not to suppose that the Vine has to be raised, we shall treat of that part hereafter. The plant is procured, we will say one year old from the eye, for that is the sort we should choose. Make a sloping hole, that the ball of earth may be laid in a sloping direction towards the wall or house, from which it should be two feet distant, nearly on its side, three inches below the level of the ground, and let the stem be firmly pegged down, three inches from the ball, and then turned upwards above the soil, within a few inches of the wall. The long stem may then be shortened, so that there may be two eyes above the surface, and no more. Every eye above the ball, but below the soil, will send out roots, and the plant will have all the benefit of the

additional nourishment. When these two eyes shoot, you will soon see which takes the lead, and then you may cut off the other, for only one is wanted, and this must be fastened to the wall or house, to prevent the wind from damaging it, but must not be confined too tightly. If the weather prove dry and sultry, the first season of planting, let there be an occasional watering in earnest, for small waterings are of no value to the plant; and we recommend that nothing be grown on the border, at least the first season. As the branch advances, all the lateral shoots must be stopped at the first leaf, that all the strength may be thrown into the one rod. At the end of the season, when the wood is thoroughly ripened, we must act according to our wants. If the Vine is to be carried through the wall, into a house, we save just as much of the rod as will reach to the inside and bear fastening, and cut back all the rest to two eyes inside the wall. All the eyes outside must be rubbed off, and the weaker of the two that start inside must be removed. The other may be loosely supported up the rafter, all the season, the side shoots pinched off to their lowest leaf, as the main rod progresses, and, towards the end of the growing season, even the main rod may be topped. This will be about September, and whether the house be a regular vinery, a greenhouse, or stove, the strong rod will be ready to bear moderately the next season. But if we are providing for the filling of a wall out-of-doors, we have to make up our mind and plan accordingly. The second year, the only difference is in fastening the rod up the wall, instead of inside a house, and cutting down to four eyes, instead of two. When these four shoots appear, we have to take the best right hand one and the best left hand one, encourage both, and remove the worst. Train both horizontally, only sufficiently raised above the ground to be perfectly clear of it, and let them go as far as they will till September or October, when you may pinch out the ends. You are, during this growth, to rub off the bottom eyes and shoots as fast as they move, but the upper ones have to be

pinched back to the first leaf. You will, at the proper season for pruning, that is, after the fall of the leaf, cut both these rods back to about the fifth upper eye from the centre on each side; and now we have to elect whether we intend to fill the wall with rods, new each year, or to permanently cover it with the Vine, and prune spur fashion. If we mean to have new rods for bearing each year, we allow every alternate eye on the upper part of the horizontal rods to push, and grow to the top of the wall, and deprive it of fruit and side shoots, and stop the other buds at the first joint. The growing rods must be fastened up the wall, the others are to lie dormant. At the end of this third season, we shall have two or three rods on each side, strong and, if stopped in September, well ripened by the end of October or beginning of November. Meanwhile, we have had no Grapes; but let it be understood, that we do not object to a bunch or two from the eyes that are lying still as it were. The rods may be trained straight up the wall, or bent a little serpentine, when set to work the next spring. Now is the time for the alternate buds, that have done nothing, to make their shoots, to grow into bearing wood the coming season, while the rods grown last year give us the fruit. As these rods break, the branches which bear the Grapes must be shortened to the first joint beyond the best bunch, for there will often be two or three bunches on a shoot, of which the best alone should be left. The shoots bearing the Grapes should be firmly fastened at the ends, to sustain the bunches, and from all the bearing rods every kind of growth should be pinched off young. Meanwhile, the alternate eyes will have pushed each one or more shoots, of which the strongest should be sustained and loosely secured to the wall, for they will be the bearing wood of the following year, side shoots being stopped all the way. Thus, while one set of rods are bearing the crop, the other is being trained for the next season. The time for gathering the crop having arrived, the Grapes are secured and the old rods cut down to one eye; the new rods are then trained to

fill the wall in their turn. When the wood is well ripened, the rods break into fruit from the bottom to the top, and generally yield a crop.

To show how far the Vine is capable of growing in a single season, the following instance was related by Mr. Simpson, gardener to John Hustler, Esq.:—"A Vine, in the garden of John Hustler, Esq., Undercliff, near Bradford, last year, increased in the dimensions of its wood one thousand two hundred times. This, to some of your readers, at first sight, may appear incredible, but the following explanation will tend to establish the fact. This Vine was raised from a single eye, the cutting, not more than half an inch in length, planted in a pot, six inches diameter, along with three more, January 7th, 1837, in light sandy soil. As soon as they attained the height of six inches, the above vine was placed in a pot, five inches in diameter, using rich sandy soil. On the 1st day of June, having made a shoot from six to eight feet in length, it was planted out in its permanent situation, the border composed of light rich soil. This Vine made a shoot above fifty feet long, and two inches in circumference, in 1837, the season it was put in as a cutting. It was pruned December 30th, 1837, the wood being firm and well ripened, and calculated to bear a large quantity of Grapes the ensuing season. This Vine is a Black Hamburgh. In the same house, and alongside of the above, is planted a White Tokay Vine, which made a shoot seventy feet in length, and perfected four fine bunches of Grapes, the same season as planted,—1835. The second year (1836), this Vine showed abundance of fruit, which was cut away, with the exception of twenty of the most promising bunches, which ripened well, and the Vine made very strong wood. The third season (1837), it produced thirty bunches, several dozens of clusters being thinned out in a young state."

The rod will, if in a house, have reached the top the first season it is introduced, and when the wood has ripened, it should be cut back to the strong buds. There may be a portion both weak and barely ripened;

this can do no good, and it is better to take it off. Without saying when the house should be closed or heated, we will suppose the Vine must take its chance among plants. The buds will break in due time, and the shoot that was removed when there were two, will give rise to a strong shoot, or more than one, and by removing all but the most vigorous, we shall provide a rod for the next year. This must be supported, or rather suspended, as it grows, and below the fruit-bearing cane, or otherwise out of its way; and it will be well to limit the number of bunches left on the bearing rod, that additional strength may be given to the new growth. Attention must be paid to the stopping of all side shoots on both,—stopping all the bearing shoots at the first joint beyond the one bunch left to swell on each; but if the crop is heavier than it ought to be on so young a Vine, you must sacrifice some of the bunches. The second shoot will, if the Vine is doing well, be stronger than the first, and when the fruit of the first is ripened and gone, you may decide whether you will go upon the single rod system, or keep the rod permanent, and for the future prune upon the spur plan, which we think, upon the whole, is preferable. With regard to the general management of the Vine in houses, we must take up the subject generally, in another paper. We have simply commenced in both places, in-doors and out, and brought the Vine up to the bearing point. So far as out-door management goes, we shall give a sort of general management, and devote our next paper to the culture of the Vine under glass, in all its forms,—in pots, in the stove, the conservatory, and the forcing house, as well as vineries in general, for the Vine requires a house for itself, except so far as we may grow things in every way subservient to its wants. But in the open air, on walls, or house fronts, and even on espaliers, the treatment should be much alike; although the continental mode of growing them, like we grow Raspberries, would be very simple, and assimilate as strongly as possible to our treatment of that plant, merely saving

three or four strong canes and supporting them, and cutting the rest away, but of this, too, hereafter.

CALENDARIAL HINTS FOR OUT-OF-DOORS.

Winter time, up to March, conform as near as you can to the directions for pruning and training; that is, if done, see that it be done properly, and rectify what is wrong; and this especially applies to Vines which are now for the first time under your care. If the vine be old and neglected, covering a large space with weak shoots, and in neither form nor fashion, cut away at least one-half the old wood, taking away those branches which have the most weak shoots on them, and cut from those remaining all the weakest shoots, leaving only the strongest, and those at least two feet apart, and not more than three eyes in length. See that all the branches and shoots are firmly nailed, without being confined; pick off the loose bark, and brush out the accumulated dirt from all parts of the wall or front to which it has been fixed.

APRIL.—The Vine will begin to grow, and many eyes will push their fruit, and a weak shoot by the side of it; pull off all the weak shoots, and only let the fruit branch grow, and attend to this throughout the month.

MAY.—As soon as the shoots are twelve inches long, nail them carefully to the wall, but remember that, as the shoots will swell, they must not be confined in the shred. Rub off every shoot, all over the Vine, that is not strong enough to make good bearing wood, and has not fruit on it. In nailing the shoots, so dispose them as to give each room, and cover the wall equally. Towards the end of the month, as soon as the lateral or side shoots of the bearing branches are from four to six inches long, the tops must be pinched off, just beyond the first leaf, but none of these shoots must be pulled off altogether.

JUNE.—Continue to pull off all useless shoots, that is, the weakest, where there are any nearer than eight or ten inches apart, all that are too weak, and all that

grow away from the wall. Firmly nail, as they advance, all the shoots intended for the bearing wood, and if they are very strong, serpentine them. Place the nails on that side of the shoot which will best hold it where you want it. When the tendrils are six inches long, pinch them off to one inch only. If any of the laterals that have been shortened send forth other shoots, pinch them off directly. Take off the ends of the bearing shoots, one joint beyond the Grapes you mean to leave on the branch; many have three bunches, and you must judge by the general crop, the strength and size of the bunches, whether you will leave one, two, or three. If only one is left, unless it be smaller, or uglier than the others, it should be that nearest the Vine.

JULY.—Be careful not to touch the Grapes while in bloom. Continue to firmly nail the shoots which are to bear next year, as they advance, and to shorten laterals and the young growth which the shortened laterals will cause to push. When the fruit has set, you must consider whether there is more than the Vine can properly mature, and you had better reduce it to half the quantity that could be perfected, than leave half-a-dozen pounds more. Have no bunches nearer than a foot apart, and if you can do it, let every bunch on the Vine have one thickness of leaf, to cover it, but not two. If a bunch be exposed, see if, by unnailing that or any neighbouring branch, you can shade it. As soon as the Grapes are as large as Peas, commence thinning them, and this must be done repeatedly.

AUGUST.—This is a critical month in the swelling of the fruit, and if there be not abundance of rain, you must give abundance of water, or liquid manure. In a well-made border, water will do, but it should be from a pond or tank, where it has been exposed to the sun. Continue thinning the fruit by taking away the smallest, removing superfluous shoots, nailing the branches as they grow, syringing gently, with a garden engine, with a fine rose, all over the surface of the leaves,—the water to fall on them, and not to be squirted upwards, to take the under side of the foliage.

SEPTEMBER.—Thin the fruit for the last time, if there be any berries smaller than the rest, or crowded. Pinch off the ends of all the summer shoots. Put a wedge behind the shoots, at each bunch, and loosen it, by nailing it with a longer shred, and then removing the tight one, to allow it to hang from the wall, the wedge, nevertheless, keeping it firm. Cut out, from time to time, decayed berries. Use the ordinary precautions to prevent the attacks of vermin.

OCTOBER.—Keep the borders clear from falling leaves, and cut out damaged berries. The forwardest bunches should be cut first, but there is no hurry for the general vintage. Prune off useless branches, and when the fruit of a branch is taken away, the branch may be cut back also.

NOVEMBER.—The principal object is to gather the fruit as it is required, and to keep it from birds. A net for the whole, or a bag or glass for each bunch, is necessary. The autumn pruning may be done at leisure, but the sooner the better.

We have thus completed a sort of calendar of operations, more fully explained in the general directions, and common attention alone will enable any one to make the best of the Vine, under whatever circumstances he may be placed. Not one in fifty may be able in all things to conform exactly to it, but every step he makes towards it will reward him for the trouble, even if he be only lessening the quantity of wood and fruit on an old Vine, and conforming to the directions within his reach.

GEORGE GLENNY.

The Carnation and Picotee.

REMARKS ON THE RUNNING OF THE COLOUR.

AMONG the most interesting as well as elegant florists' flowers, must be mentioned these beautiful subjects, produced from wildings of the least possible interest, and brought to a state which renders it not unlikely

that they will at last attain perfection, although we have placed before the floral world a model not easily approached. The habit and treatment of these plants are so similar, that it is impossible to separate them, until we come to the perfect flowers, when the different style of bloom forces us to distinguish several of their properties which are totally different from each other. The Carnation has stripes of colour through the body, as it were, of the petals, the Picotee has its most dense colour on the exterior edge, and when at its best, the colour radiates from the edge to the body of the petal, without reaching far. In form, texture, and thickness they should be alike. It is the marking which is different, and so essentially different as to make the distinction between them. Of the many writers on these flowers, none have been able to decide upon the cause of one particular failing. When all has been done that can be done, and without our being able to arrive at any good reason for it, some flowers will lose their beautiful stripes and edges, and become flushed with colour all over, in the same way that a Tulip will go back to a breeder or self colour, after blooming for years in the finest possible character; but there is this difference in the flowers. The Tulip has first to break into stripes, after coming a self colour, and perhaps blooming so for years, whereas the Carnation begins flowering, even the first year from the seed, in its beautiful variegated colours, and one is not prepared for the change to a worthless self-coloured bloom. The manner of its coming is as extraordinary as it is unaccountable. Plants reared from the same stool will come some fine and some spoiled, although all have been treated alike in every possible way. Nay, this is not all, for flowers on the same plants will come one half fine and the other half inferior; even single flowers will be half fine and half run. This shuts out at once all the groundless notions that have been formed of its being caused by different modes of treatment. By some it has been considered that the more they are excited by strong manures, the more apt they are to partially or wholly run, and one of the most likely means of profitable

investigation of the subject will be found in submitting the flowers, or rather the petals of the flowers, in their different states, to a powerful microscope. Your readers do not need to be told that the petals of flowers are composed of atoms, like so many bladders of liquid. Now, if these contain the colouring matter, and any particular rupture of these globules disperse it, we can easily account for the partial running of a single flower, or the running of all the flowers upon a plant; because the excited growth that would burst the globules of which the flowers are formed, would, if the colouring matter be there, disseminate that which formed, or would form, the dense or brilliant concentrated marks, over the whole texture, that is, among all the colourless globules of which the white parts seem composed, and so make a fainter hue over the whole mass. So also would the rupture of a few in one part of the flower spoil a portion or the whole of the petal in which the rupture took place; and in every stage of foulness, from very partial to very general, the effect is precisely that which would be caused by the bursting of the globules of colour, and the colouring matter running amongst the atoms that would otherwise have been white. If this theory be admitted, there is no longer any mystery in the running of Carnations, and it is easy to suppose that the globules of which the coloured part of a flower is composed may be too weak for a strong growth, and that they, like the blood vessels in the human frame, would give way, under particular excitement. The partial rupture of a flower, or a single petal, is no more strange than the rupture of a single vessel in the lungs or the brain, and may be caused by too much excitement at that particular part, or by too little resisting strength. It is, in fact, no more than the bursting of a Gooseberry, or the cracking of a Plum. If your readers were to submit the petals of a flower to a magnifying power that would exhibit the thousands of globules of which it is composed, like the roe of a herring, or the pulp of an orange, they would no longer consider it wonderful that the colour of a Carnation runs. All florists seem to

fancy that the running of flowers is a consequence of growing them too rank, or, in other words, of exciting them too much, a conclusion not at all unnatural; but it may be also the consequence of predisposition to a peculiar weakness in the flower itself, or in the portions which form the predominating colours; and this is the more likely, because we find particular varieties much more liable to run than others. The study of the amateur, therefore, should be, with those varieties, to adopt a steady culture, avoiding, as much as possible, exciting composts, and thus prevent unnecessary growth, which we know is often fatal to highly coloured flowers. I wish more attention was paid to this subject, by amateurs; it is impossible to conceive one more interesting, and surely there is not one which has given rise to such senseless speculation.

JOHN THOMPSON.

St. Lawrence, Jersey.

Mr. Willison's & Mr. Goldham's Tulips.

I SHOULD have treated Mr. Walker's attack upon me with the contempt it merits, had it not contained personalities which, with those who do not know me, might have a very prejudicial effect, although, with those who do know me, Mr. W. will be the only sufferer, as it plainly shows that truth is to him a stranger. Those who were at the national exhibition, know how truthful he is when he deliberately states that the blooms of the rectified varieties were too old, when, in fact, all but those from the south were days short of bloom, and some growers, within five miles of Manchester, could not make up a stand till nearly a week afterwards.

Mr. Walker has asserted that my attack upon Willison's Tulips was owing to my having been refused an exchange. I should wish him to publish that letter, and it will reveal what I considered worth growing, and

does not include any that I have spoken disparagingly of. Since my last, I have had a conversation with some growers, forty miles from Manchester, who were at the exhibition, and they coincided with the remarks I made. If Mr. W. had read much, or mixed much in florists' society, he would have known that I wrote a descriptive list of nineteen of Mr. Goldham's Tulips, for the *Gardener's Record*, August, 1854, page 172, and the Duchess, as well as Napoleon, were mentioned as worthy a place in any collection, and I can prove, that ever since I saw the Duchess, I have invariably stated that it is the best flamed bybloemen in cultivation; and my opinion of those he has advertised was such, that, on the first opportunity, I got as many of them as I could, and have bloomed several this season.

I shall now conclude this correspondence, and the only way for Mr. W. to prove me wrong respecting Mr. Willison's seedlings, is to produce them at the national exhibition, at Sheffield, next year, when, if spared, I will bring him a few to place side by side with them, and then let others judge who is right as to their merits.

JOHN SLATER.

Cheetham Hill, near Manchester.

MR. EDITOR,—In my article of last month, a very serious and important error is made. It states that the Tulip bed should be four feet high. What I wrote was, "the bed should be four feet from the hedge, and nine inches above the walk." This distance is necessary to prevent the Tulips from being drawn, by being too near the Beech fence, and if the bed is nine inches above the walk, a drainage will necessarily be made, and the bulbs kept rather dry, and also get more air.—J. S.

Perennials from Seed.

IF an amateur would really enjoy a garden, how much more proud would he be of a collection of plants of his own raising and naming, than he could be of a stock wholly produced by others; and how much more

economical would be the process. In a three shilling packet of Geranium seed, we have had thirty very pretty varieties, and eight of them good enough to grace any house full of that flower. In the first shilling packet of Hollyhock seed we ever used, we had sixty plants good enough for any garden ornament, and twelve of them good enough to exhibit. As to Dahlias, with a good chance of a first-class flower or two, there is a certainty of a dozen or more that will be as good as one-half that are let out at half-a-guinea. A pinch of Pansy seed, and we may jump into a collection at once; and so with many other subjects. But the ordinary run of seed will not do this. It must be saved from good flowers only, and all others must be destroyed. If we begin with bad seed, we may not get a good flower in a thousand. It would be labour lost, and this it is that has curbed the ambition of amateurs to raise their own perennials. But there are some flowers that are pretty in all stages of growth,—the most common are passable for the first season, and we need only mark the best for propagation, and consign the rest to the rubbish heap, after blooming. The next year, we may find half-a-dozen more, perhaps, worth retaining, and thus soon get up a good collection. The only thing that would militate against the public sale of such plants, would be their similarity to varieties already public. Mrs. Glasse recommends people to catch their hares before they cook them, and those who desire to raise collections of any thing, will naturally ask where they are to get the seed. That is sometimes the difficulty; but we will do our best to advise them how to get their wants supplied, when we know them. In the meantime, we will suppose they have got the seed. Pansies, Antirrhinums, Hollyhocks, Campanulas, Digitalis, Sweetwilliams, Delphiniums, Columbines, Pinks, Carnations and Picotees, Phloxes, and such like, may be sown thinly, in the open ground, and covered completely, but not deeply, with sifted soil. Drills, perhaps, are the best method. When once sown, they must not be allowed to dry. Water them with a fine

rose, that will not wash away their covering, and they will soon be up. Every weed that makes its appearance must be pulled out as soon as it is large enough to lay hold of. Drills are desirable, for the convenience of walking between them, for that purpose, and they should be watered every evening, in dry weather. The seedsman often gets blamed because seeds do not germinate, when, in very many cases, it is the growers' fault. They sow the seed, the natural dampness of the earth swells it, dry weather ensues, there is not moisture enough to continue the process of germination, and the seed, after swelling, dies, and there is an end of it, for the vital principle has been excited by the temporary moisture and then destroyed. The fault lies in the neglect of watering, for seed must never be allowed to dry, when once committed to the ground. As soon as the plants are large enough, they should be pricked out in store beds,—small things six inches apart, and larger ones nine inches or a foot. For this, let the ground be dug well and then trod down, as hard as the weight of a man will do it. Let it then be raked over and lined out. Use an iron-shod dibble, because the holes will be more easily made, and the earth must be closed firmly upon the roots, otherwise they will be easily disturbed by the worms, soon affected by dry weather, be very susceptible of blight; in short, three parts of the mischief that arises among small plants, after putting out, may be traced to loose planting. If you have plenty of room, every thing may be put out at the proper distances for blooming, in the first instance. Pansies, Antirrhinums, Columbines, and Pinks, may be left to bloom at six inches apart in the row, and a foot between the rows. Hollyhocks, Carnations, Picotees, Delphiniums, Digitalis, Sweetwilliams, and Phloxes will be better with eighteen inches distance in the rows, and two feet between them. None but the Hollyhocks will require stakes, and not those, if they are kept down to four feet, by topping. Mimuluses, Dahlias, Cinerarias, and Primulas, are better sown in pans, under glass. They will do sown in the open air; but

the necessity of pans, where the seed is very choice, must be obvious, because, in a rough way of sowing, some must be lost, and the lost ones are as likely to be good as middling. In fact, not a seed should be sacrificed, for, if we do look for good flowers at all, every grain should be preserved. Dahlias may be planted out from the seed pan in May, and Verbenas and Petunias also. Cinerarias and Mimuluses are better round the edges of pots, and kept under glass, till large enough to shift into single pots, where they may be grown on till they fill the pots with roots, when they must be shifted into larger ones, and so kept growing till they bloom. Geraniums should be sown in pans, and pricked out like the rest, round the edges of pots. It is by far the best way of pricking out all delicate things, and the plants so pricked out come on faster than any that are put in in the centre, though many put them in an inch apart, all over the surface. This is a common way with Stocks, Asters, and other annuals. When the Geraniums have got four good rough leaves well grown, let them be potted singly, in three-inch pots, and from that period they are to be grown and shifted until they flower, whether it be sooner or later. In growing seedling Geraniums, never pinch them back, or check their untoward growth, because, to appreciate a seedling properly, it must be seen in its natural habit, and not be made bushy or handsome, because it would deceive us as to general features.

A good deal of mystery is sometimes made of the peculiar kind of compost for particular plants. There is no occasion for all this. Generally speaking, compost for potted plants should be light and rich. Two parts loam, from rotted turfs; one part decomposed dung, from an old hotbed; and one part turfy peat, rubbed through a coarse sieve, would grow nine things out of ten in the best style. Heaths, and some hard-wooded Botany Bay plants, would require three parts of peat, instead of one, but the former would be best for nearly all other plants. Some people recommend twenty things in a mixture. Among other things, sand

and leaf mould; but we have the leaf mould, that is to say, decomposed vegetable matter, in perfection, in the rotted turf, and the sand in the peat earth. So that our compost is essentially the same as if made up of the separate ingredients. Nor can it vary much, for the turfs cut to lay down rot to much the same stuff, come from where they will; they may be a little more or less adhesive, but not either in extreme. Nearly every plant will thrive in the mixture we have mentioned. Then, with regard to the time of sowing, Nature gives us a good lesson. It cannot be wrong, though it may be inconvenient, to sow as soon as the seed is ripe. For, out-of-doors, and, of course, hardy things, the seeds come up strongest where they are dropped naturally, and, were it not for digging our beds and borders, and thereby disturbing them, almost all seeds would come up like small salad, wherever they were allowed to ripen and fall. Nothing can show clearer that seeds may be sown as soon as they are ripe. Greenhouse and stove plants allow of our doing this, but it may be inconvenient to do it out-of-doors, because the space must be, as it were, unoccupied all the winter. As seedlings come into flower, we must throw away all that are inferior, as fast as they come into bloom, for they will otherwise spoil the seed of the remainder; and if it be inconvenient to take up the roots, cut down the flower stems, that they may be deprived of the power of doing mischief. Hollyhocks and Dahlias ought to be cut down to the ground, if they cannot be at once pulled up. It is possible, however, that a semi-double flower may be worth preserving, if the petal be good and the colour decidedly new, for the seed from such will perhaps throw double flowers of the same colour. In Dahlia growing, a new practice is becoming rather popular. They are sown late, and grown into bulbs about the size of pot roots. The next spring, they are planted like so many Potatoes, four inches deep, and at proper distances,—eighteen inches in the row, and the rows three feet apart. They come up very strong and bloom very early. It is said

that they flower in their true character; so that there is very little speculation. Of course, the inferior ones are pulled up, or dug up, the instant their qualities are developed. This, however, is all very well, if a man has lost his opportunity of sowing early; but those who have the spring before them, will not wilfully lose the chance of seeing them the first. We have, of late, strongly recommended amateurs to grow from seed all those plants which are cultivated in named collections, for nothing exceeds the interest with which a raiser contemplates his chance of novelties, when his seedlings are coming into bloom.

Noliosanthus Coccinea, or *Crassula Coccinea*,

Is one of those fine old plants of which we have so many, but which we rarely see well grown. However, there are few handsomer than this, when well done, or of more easy culture. Take cuttings about February, cut them down to an inch and a half in length, trim off the leaves an inch up the stem, cut the bottom smooth, and insert them singly, in small sixty pots, in a compost of equal parts loam and peat, with a good addition of silver sand. Plunge the pots in a little bottom heat, with a temperature of about sixty degrees. Keep the Cuttings shaded from the heat of the sun, and give proper attention to watering. This will be all they will require till they are fairly struck, which will be in about a fortnight or three weeks. When the pots are full of roots, the plants should be shifted into large sixties, using the same soil as before, and be careful in giving plenty of drainage, as there is much more depends on the mechanical management of plants than on any thing else. The plants may be returned to the frame. When they have grown about two inches, the tops should be taken carefully off, to induce them to throw out side shoots. They should be repotted into thirty-twos, as they require it, being careful not to

overpot. Keep them in the frame till about the middle of June, after which, they may be gradually hardened and set out-of-doors, where they can be shaded from the mid-day sun, but not under the drip of trees, to complete their growth. These plants will bloom freely the next year. After blooming, they should be cut down, each shoot being left about an inch long. I prefer cutting down the whole of the shoots, whether they bloom or not, as, by so doing, a regular break is obtained, and a much handsomer plant is produced. But, as the *Kolosanthes* only blooms on one-year old wood, two sets of plants are required; one set to bloom one year and the other the next. As above stated, I prefer equal parts of loam and peat, with a mixture of sand, to grow them, and I also like to add a quantity of well-rotted cow dung. Many persons mix a good deal of lime rubbish with the soil, but too much of this I object to, as the plant will do much better with liberal treatment. The plant must never be allowed to become too dry, winter or summer, or it is apt to lose its bottom leaves. To procure handsome specimens, great care must be taken that they are properly staked. When then the plants are cut down, after blooming, water should be partially withheld till they again break, or there will be danger of them decaying, through overabundance of moisture at the roots. When well grown, this is one of the finest exhibition plants we possess, particularly as it blooms at a time when there are but few plants fit for the purpose. Attempts have been made to grow it as a bedding plant, but, beautiful as it is, I fear it will never be brought into general use, for that purpose, on account of the trouble it would take to produce it in sufficient numbers.

W. S.

AMARYLLIS.—These beautiful bulbous plants will be found to repay the grower who has heat at command. My way of growing them is to give alternately a season of excitement and a season of rest. To do this, they

should be abundantly supplied with water, and kept near the glass, when coming into flower. When the blooming season is over, water should be gradually administered till they have done growing. The bulbs intended for blooming should be repotted about the beginning of February, into sandy loam and peat soil, placing them in a stove or hotbed, where the temperature is from sixty to seventy degrees. Water should be plentifully supplied. Those amateurs who can find convenience for growing the *Amaryllis* will find these remarks useful.—H. BRASSINGTON, *Nuthall Temple*.

THE STOCKWOOD GOLDEN HAMBRO' GRAPE is very fine, of the white class, and was obtained from seed of the old Black Hambro', impregnated with pollen of the White Sweetwater. In hardiness of constitution, it equals the Hambro', and for rapidity of growth beats that well known variety. It is a most abundant bearer and a free setter, ripening its fruit in the same house at the same time as the Hambro'; and it is a most excellent bearer in pots. In size of bunch and berry, it equals the Hambro', when that variety is grown to perfection. Skin thin and tender, of a pale yellow, but when highly ripened, of a pale amber. Flesh delicate and melting, very juicy, and remarkably rich, sugary, and vinous, leaving on the palate a full and luscious flavour.—M. BUSBY, *Stockwood Park*.

Queries and Answers.

AN AMATEUR who has an abundance of Fuchsias, Balsams, Geraniums, Cinerarias, Petunias, &c., and wants something better for his greenhouse, may indulge his fancy with *Camellia Japonica*, *Azalea Indica*, *Epacris*, *Acacias*, *Cestrum aurantiacum*, *Boronia*, *Ereostemons*, *Veronica Andersonii* and others, *Abutillo*, *Platycodon* (double white, double blue, and the single varieties), *Chorozemas*, *Ericas*, all showy in bloom and pretty out of bloom (except the *Platycodon*, which dies down to the root and comes up again like *Asparagus*), and the foliage of which is varied and handsome.

2 M 3

SIR HARRY STRAWBERRY.—Is this half what they say about it, because there is great difference of opinion?—Sir Harry is a very noble berry, and is not only handsome, but also a good bearer; but, under the most favourable circumstances, it has not so good a flavour as a ripe Keane's Seedling, nor is it nearly so sweet as the British Queen. Nevertheless, it is a distinct sort, and, for Strawberry collectors, worth a place. Kitley's Goliath and Carolina superba would be preferred, if we could only add two out of the three.

EARWIGS.—Is Edwards's earwig trap any good?—There is no trap equal to lengths of bean stalks. There is no mystery about earwig catching; make any dark place, whether it is an inverted flower pot, with a bit of moss in it, a lobster's claw, a marrow bone, or a tube of any kind, no matter, but a bean stalk, from nine inches to a foot long, is the best. The smell of the bean stalk attracts the earwig, and you have only to go round once a day and blow them out into salt and water, and you will soon clear the place of earwigs.

S. R. wants to know the effect of an infusion of *Digitalis* as a wash for plants, to prevent the ravages of insects. It would be much the same as tobacco, if dried and cured like tobacco; but tobacco water is the only wash we have used, and it answers so well that we have never cared to change it. Now *Digitalis* is much such another poison, but we are not sufficiently acquainted with the strength of it to apply an infusion with the confidence and certainty of tobacco, and, if too strong, either of them will poison the plant.

ROSARIES.—I want a rosary, and a friend of mine wants me to have the plants on their own roots. He says they are greatly superior. What do you think?—A YOUNG GARDENER.—There are several points to be considered, of much greater importance than whether a Rose be on its own roots. First, whether a rosary be planted on any fanciful design, or simply a row of Roses; whether it is of standards or dwarfs, or climbers, or some of each; whether the object be a continuous bloom and not much variety, or variety without regard to the general effect. Secondly, what the effect will be, after a few years' planting. We confess that our object in a rosary is, first, uniformity, and secondly, continuous bloom. The most simple of all, and the most effective, with least trouble, is a walk with a bank of Roses on each side. This is easily formed with dwarf Roses, half standards, and standards. The front row may be the little fairy Roses, of which there are several sorts, very free bloomers on their own roots; the second row may be the larger Roses, also on their own roots; the third row, Roses worked a foot from the ground; the fourth row, half standards; and the back row, standards. We have seen this so managed that, in one case, the greater part were in bloom most effectively. Crimson, yellow, white, and pink,

equally balanced all the entire length. In the other case, they were planted in the same manner, but here and there a mass of flowers, and large spaces with none, nothing even, nor uniform, except the planting, which was good. The whole difference of these two rosaries consisted in the choice of varieties. One had a hundred different sorts, the other only eight or nine. These were so contrived that each sort was the same distance apart the whole length of the rosary, consequently, if one sort was, at any particular season, in better bloom than other sorts, the flower was conspicuous all the way, and the same with all others. Besides, where we require only six or eight varieties, we can choose those that are nearly always in flower,—Celestine (pink), Fellenberg (crimson), Geant des Batailles (scarlet), Devoniensis (yellowish white), Yellow China, Queen of Bourbons (beautiful light fawn), Souvenir de la Malmaison (blush white), Aime Vibert (pure white). Now, as particular Roses have their prevailing seasons of bloom, that is, when they are better than usual, it is of the greatest importance that they should be distributed evenly, all over the plantation. The question of whether they should be on their own roots is unimportant; some do well, others do not, but most nurserymen keep all the sorts in the state in which they do best. Still the front two rows require to be kept down, and therefore should be on their own roots. We have mentioned a few names, but our principal object is to strongly recommend Rose amateurs, to multiply the number of the best for their purpose, and not seek to increase the number of varieties, for many will be out of bloom at times, and the collection will never look well.

Notes for the Month.

CINERARIAS.—The plants will be growing rapidly, and should have as much room, light, and air as can be given with safety. Fumigate with tobacco paper, as soon as the greenfly makes its appearance. Remove all fogged leaves, and keep the plants as clean as possible. Never allow them to get thoroughly dry. The temperature should range from forty to forty-five degrees. —JOHN DOBSON, *Woodlands Nursery, Isleworth.*

FLOWER GARDEN.—Clear the borders and other flower compartments of all dead annuals. Cut down all dead stems or decayed flower stalks of perennials, and let the borders be well cleared of the fallen leaves and all kinds of rubbish. When the weather is dry, go over the beds with a hoe, cutting up all remaining weeds and loosening the surface; otherwise let them be neatly digged, which will destroy the weeds, and render

the borders clean and decent for the winter. It is still the proper time for planting many sorts of perennial and biennial plants, and various kinds of bulbous roots, such as Tulips, Crocuses, Snowdrops, Hyacinths, Anemones, Narcissus, &c. Prune flowering shrubs and dig the shrubbery. Plant hardy flowering shrubs and evergreens, and forest and ornamental trees. If severe frost should set in, protect the roots of choice newly-planted trees and shrubs. Mow and clean grass lawns and walks. Take care of the beds of the choicest kinds of Hyacinths, Tulips, Anemones, &c., and provide materials for making compost,—good mellow light earth, light top-spit loam, and rotten dung—mixing the whole together in a heap, and exposing it to the sun and air. Dahlias still in the ground should be taken up. Clean the roots from all soil, and expose them to dry for a few days, which will prevent many of the crowns being destroyed by snails, concealed amongst the tubers.—RICHARD EDWARDS, *Nuthall*.

FUCHSIAS.—Most of the plants will be in their winter quarters, and little advice is necessary this month. Young plants, struck as recommended, should be kept gently moving. These will do well in a temperature ranging from forty to forty-five degrees.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

GREENHOUSE.—Continue careful attention to your greenhouse plants in general, now all housed for the winter. They will require admission of fresh air, every mild day, occasional gentle waterings, and protection from frost and inclement weather.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempsill Hall*.

FRUIT GARDEN.—Plum, Apple, and Pear trees, either on walls or as espaliers, may be pruned any time this month. In pruning, where a supply of new wood is wanted in any part of the tree, leave some of the best situated shoots of last summer's growth, lay them in entire, and train them as far as there is room, without any shortening, and in the second or third year, they will begin to bear. This being the most eligible season for planting fruit trees generally, the earliest opportunity should be taken to procure them in the best state, choosing them with proper heads, and of free regular growth.—J. FROST, *gardener to J. T. Edge, Esq., Strelley Hall*.

KITCHEN GARDEN.—Towards the latter end of the month, plant some early Beans. Mazagan is a great bearer, and good for table, while young. Peas, if none were sown last month, may be sown the beginning or middle of this. There is little dependance on a crop of Radishes, but still, where these things are required early, it will be proper to sow a few. Let the Lettuce and Cauliflowers planted in frames, last month, to stand the winter, have the air freely, every day, when it is mild and dry, by taking the glasses entirely off in the morning

and replacing them in the evening; if these plants are kept too close, they will draw up. The advanced crops of celery should be fully earthed up, to blanch, and to protect the plants from frost. Take advantage of a dry day to tie up Endive, for blanching. Finish planting Cabbage, to come forward in spring, and earth up Asparagus beds, where not already done. Winter Spinach must be kept perfectly free from weeds, every plant standing single, that the sun and air may dry the surface of the ground, and cause them to thrive better. Take up Carrots, Parsnips, and Beet, and lay them in sand, for winter use. Take care of young winter Onions, carefully picking out all the weeds.—JOHN BEARDMORE, *gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—The dry weather in August has been fatal to many Pansies, in England, and it will require the skill of the cultivators for some time to make up for the number lost. Few first-rate Pansy growers have escaped. The plants that have been selected and potted up, as previously recommended, should be kept moderately dry. Give air at every favourable opportunity, and, should the weather be mild, leave the lights tilted all night, taking them off in the day, if the weather is dry. Those in beds should be attended to, by looking over them and making secure to sticks such as are likely to be blown about by the wind. Slugs must also be looked after.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—This is a quiet yet very trying month for the plants, the atmosphere being generally damp and foggy, causes the leaves to fog off. Water but seldom, and be careful to ascertain that the plants require it before doing so. Cleanliness in the plants, with plenty of light, is the main object this month. In damp weather, fires should be occasionally lighted to dry up the damp, and if the temperature be favourable, give air at the same time, but this can seldom be done with safety this month. Keep the house dry, and the temperature from forty to forty-five degrees.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

ROSES.—Transplanting should be proceeded with. Choose a dry day, and if the soil has to be made, whether for a single plant or a large bed, take care that it be well drained. Nothing suits the Rose better than two parts good stiff loam and one part well rotted dung. Let the plants be neatly staked and well tied, and they will put forth new roots before winter sets in. Stocks, for budding next summer, may be procured this month.—*Roses in Pots* should be in their winter quarters about the end of the month. Prune a few, and prepare them gradually for the forcing house. They may be first placed in a cold frame, and then in the greenhouse, taking care at all times to give plenty of air, and keep down greenfly, by fumigating, &c.—H. DAVIES.

STRAWBERRIES.—If the planting of Strawberries has been deferred till now, no time should be lost in completing it. Plant from the nursery bed, and be careful to remove the plants with as much earth as possible; use a trowel or small spade to plant with, and tread in the plants very firm, which will be a means of preventing injury from frost. The beds should also be lightly and regularly mulched all over, plants and all; this will keep them warm in winter, and prevent them being thrown out by severe frosts. Runners, prepared in nursery beds, make fine stiff plants, which are in excellent order for planting at almost any time, and will be found much more productive than plants not so treated.—W. J. NICHOLSON, *Egglescliffe, near Yarm, Yorkshire.*

Floral Exhibitions.

TULIP SHOW.

At Mr. W. Postlethwaite's, Florist's Arms, Leigh, Lancashire, May 27th, 1857.

Premier Prize.—1. J. Mort, with Charles X., Lustre, Bienfait, La Belle Narene, Lady Crewe, and Unique. 2. R. Ratcliffe, with Charles X., Polyphemus, Washington, Adelaide, Aglaia, and Unique. 3. R. Mort, with Charles X., Lustre, Baguet, Siam, Heroine, and Unique. 4. W. Belshaw, with Surpass La Comique, Violet Winner, Bien'ait, Heroine, and Unique. 5. R. Prescott, with Charles X., Lustre, Baguet, Adelaide, and Aglaia.

Feathered Bizarres.

- 1 Charles X., W. Belshaw
- 2 Lord Lilford, J. Mort
- 3 Duc de Savoy, R. Prescott
- 4 Crown Prince, R. Tyldesley
- 5 Waterloo, R. Ratcliffe
- 6 Magum Bonum, R. Mort
- 7 Pass Catafalque, J. Davies
- 8 Seedling, J. Eaton
- 9 Truth, R. Mort

Flamed Bizarres.

- 1 Lustre, R. Prescott
- 2 Polyphemus, J. Postlethwaite
- 3 Charbonnier, J. Davies
- 4 Pass Lacantique, W. Belshaw
- 5 George IV., ditto
- 6 Albion, J. Mort
- 7 San Joe, J. Davies
- 8 Don Cossack, J. Postlethwaite
- 9 Old Dutch Catafalque, R. Mort

Feathered Hybloemens.

- 1 Bienfait, J. Boardman
- 2 Lancashire Hero, ditto
- 3 Violet Amiable, R. Ratcliffe
- 4 Washington, R. Tyldesley
- 5 La Belle Narene, R. Mort
- 6 Violet Winner, R. Prescott
- 7 Mango, ditto
- 8 Queen of the North, R. Ratcliffe
- 9 Beauty, J. Postlethwaite

Flamed Hybloemens.

- 1 Atlas, R. Ratcliffe
- 2 Beaufait, J. Eaton

- 3 Sable Rex, R. Clegg
- 4 Siam, J. Davies
- 5 La Belle Narene, W. Postlethwaite
- 6 Queen Charlotte, J. Davies
- 7 Adelaide, J. Boardman
- 8 Uncle Tom, R. Ratcliffe
- 9 Incomparable, J. Lomas

Feathered Roses.

- 1 Heroine, W. Belshaw
- 2 Lady Crewe, R. Prescott
- 3 Village Maid, ditto
- 4 Aglaia, R. Ratcliffe
- 5 Comte, ditto
- 6 Walworth, R. Prescott
- 7 Andromeda, R. Clegg
- 8 Anastasia, R. Mort
- 9 Bronte, J. Tyldesley

Flamed Roses.

- 1 Unique, A. Belshaw
- 2 Triomphe, W. Belshaw
- 3 Camillus, R. Ratcliffe
- 4 Aglaia, R. Prescott
- 5 Village Maid, R. Tyldesley
- 6 Vesta, J. Eaton
- 7 Ponceau, J. Mort
- 8 La Vandicken, J. Postlethwaite
- 9 Newcastle, R. Clegg

Bizarre Breeders.

- 1 Polyphemus, A. Belshaw
- 2 Seedling, R. Ratcliffe
- 3 Hamilton, J. Boardman
- 4 Truth, A. Belshaw

Byblæmen Breeders

- 1 Belshaw's Glory, W. Belshaw
- 2 Sunderland, R. Tyldesley
- 3 Unknown, J. Eaton
- 4 Triomphe, R. Ratcliffe

Rose Breeders.

- 1 Village Maid, A. Belshaw
- 2 Catherine Gordon, R. Ratcliffe
- 3 Lady Liltford, R. Prescott
- 4 Triomphe, R. Clegg

TULIP SHOW.

At Mr. W. Wilkinson's, Gardener's Inn, Blackburn, May 30th, 1857.

Judges.—Messrs. Gibson, and Barton

Maiden Prizes.—1. Violet Amiable, Mr. Aspden. 2. Bienfait, Mr. Kay.

Premier Prize.—Charles X., R. Haworth.

Feathered Bizarres.

- 1 Charles X., R. Haworth
- 2 Duke of Devonshire, ditto
- 3 Waterloo, Broughton
- 4 Catafalque, W. Haworth
- 5 Truth, R. Haworth
- 6 Adonis, ditto
- 7 Crown Prince, Broughton

Flamed Bizarres.

- 1 Abercromby, R. Haworth
- 2 Charbonnier, ditto
- 3 Masterpiece, J. Hadfield
- 4 Duke of Devonshire, ditto
- 5 Unknown, Broughton
- 6 Charles X., R. Haworth
- 7 Lustre, ditto

Feathered Byblæmens.

- 1 Violet Amiable, Aspden
- 2 Bienfait, Kay
- 3 Unknown, R. Haworth
- 4 Lewold, J. Hadfield
- 5 Duc de Bordeaux, Pemberton
- 6 Beauty, Houlker
- 7 De Maroc, Hadfield

Flamed Byblæmens.

- 1 Incomparable, Fairbrother
- 2 Bienfait, Kay
- 3 Queen of the North, Houlker
- 4 Incomparable, Aspden
- 5 Prince Elle, R. Haworth
- 6 Washington, ditto
- 7 Pucelle de Dart, Hadfield

Feathered Roses.

- 1 Triomphe Royale, R. Haworth
- 2 Lady Crewe, Fairbrother
- 3 Gigantum, ditto
- 4 Count, R. Haworth
- 5 Lady Derby, Broughton
- 6 Claudiana, Hadfield
- 7 Hero of the Nile, ditto

Flamed Roses.

- 1 La Vandicken, Wilkinson
- 2 Unique, Hadfield
- 3 Triomphe Royale, W. Haworth
- 4 Vesta, ditto
- 5 Lady Stanley, Houlker
- 6 Kate Connor, ditto
- 7 Lady Crewe, Aspden

Bizarre Breeders.

- 1 Duke of Kent, R. Haworth
- 2 Masterpiece, ditto
- 3 Ariosto, Fairbrother
- 4 Charbonnier, R. Haworth

Byblæmen Breeders.

- 1 Sancta Sophia, Kay
- 2 Lady Seymour, R. Haworth
- 3 Maid of Orleans, Hadfield
- 4 Queen Charlotte, Houlker

Rose Breeders.

- 1 Kate Connor, Fairbrother
- 2 Martin's Seedling, ditto
- 3 Martin's Seedling, R. Haworth
- 4 Juliet, Fairbrother

Selfs.

- 1 Min d'Or, R. Haworth
- 2 King of Yellows, ditto

TULIP SHOW.

Held at the Lomax Arms, Great Harwood, May 30th, 1857

Extra Premier Prize (Kettle).—Charles X., T. Gibson.

Premier Prize (Kettle).—Earl of Surrey, T. Chippendale

Feathered Bizarres.

- 1 Charles, T. Gibson
- 2 Duke of Devonshire, ditto
- 3 Truth, E. Hodgson
- 4 Charbonnier, R. Birtwistle
- 5 Wellington, E. Hodgson
- 6 King William, T. Chippendale
- 7 Trafalgar, J. Mercer

Flamed Bizarres.

- San Joe, J. Mercer (Kettle).
- 1 San Joe, T. Chippendale
- 2 Pilot, T. Gibson

- 3 Paganini, R. Birtwistle
- 4 Albion, ditto
- 5 Charles X., T. Chippendale
- 6 Lustre, E. Hodgson
- 7 Polyphemus, J. Baron

Feathered Byblæmens

- Bienfait, E. Hodgson (Kettle).
- 1 Bienfait, E. Hodgson
- 2 Gibbons, T. Chippendale
- 3 Buckley's Beauty, E. Hodgson
- 4 Winner, ditto

- 5 Violet Amiable, E. Hodgson
- 6 Mr. Butler, T. Chippendale
- 7 Gigantum, E. Hodgson

Flamed Byblæmens.

Martin's Steady, John Baron (Kettle)

- 1 Reid's Prince Albert, T. Chippendale
- 2 Violet Brun, ditto
- 3 Bienfait, T. Gibson
- 4 Democrat, ditto
- 5 Pucelle, R. Birtwistle
- 6 Incomparable, ditto
- 7 Camerine, ditto

Feathered Roses.

Lady Middleton, R. Birtwistle (Kettle).

- 1 Comte, E. Hodgson
- 2 Lady Middleton, ditto
- 3 Newcastle, T. Chippendale
- 4 Amelia, E. Hodgson
- 5 Miss Nightingale (seedling) J. Martin
- 6 Andromeda, R. Birtwistle
- 7 Claudiana, T. Gibson

Flamed Roses.

- Aglaia, R. Housman (Kettle).
- 1 La Vandicken, T. Gibson

- 2 Aglaia, T. Gibson
- 3 Lady Petre (seedling), T. Chippendale
- 4 Rose Unique, ditto

- 5 Unknown, E. Hodgson
- 6 Lady Stanley, R. Chippendale
- 7 Triomphe Royale, E. Hodgson

Bizarre Breeders.

- 1 Martin's No. 28, R. Birtwistle
- 2 Duke of Kent, T. Gibson
- 3 Polyphemus, ditto
- 4 Seedling (Martin), J. Martin

Byblæmen Breeders.

- 1 Seedling (Martin), R. Birtwistle
- 2 Seedling (Martin), E. Hodgson
- 3 Schoolboy (Martin), T. Chippendale
- 4 Roland, R. Birtwistle

Rise Breeders.

- 1 John Waterston, T. Chippendale
- 2 Madame St. Arnold (Martin), ditto
- 3 Mrs. Hodgson (Martin), ditto
- 4 Seedling (Martin), E. Hodgson

Selfs.

- 1 Model (Willison), T. Chippendale
- 2 Purity (Willison), ditto

TULIP SHOW.

Held at the Petre's Arms, Holtmill, near Blackburn.

Extra Premier Prize.—Charles X., T. Gibson.

Feathered Bizarres.

Charles X., R. Birtwistle (Kettle).

- 1 Charles X., T. Gibson
- 2 Truth, E. Hodgson
- 3 Surpass Catafrique, J. Foulds
- 4 Surpass Optimus, T. Chippendale
- 5 Unknown, E. Hodgson
- 6 Sulphur (seedling), T. Chippendale
- 7 General Bosquet, E. Hodgson

Flamed Bizarres.

Charles X., T. Chippendale (Kettle).

- 1 Sam Joe, T. Gibson
- 2 Polyphemus, E. Hodgson
- 3 Paganini, T. Gibson
- 4 Prior, ditto
- 5 Duke of Devonshire, ditto
- 6 Lustre, E. Hodgson
- 7 Charbonnier, J. Foulds

Feathered Byblæmens.

Bienfait, E. Hodgson (Kettle).

- 1 Bienfait, T. Gibson
- 2 Winner, E. Hodgson
- 3 Violet Amiable, ditto
- 4 Incomparable, J. Foulds
- 5 Lord Ranchiffe, R. Birtwistle
- 6 Buckley's Beauty, E. Hodgson
- 7 La Belle Narene, R. Birtwistle

Flamed Byblæmens

General Loftus, J. Foulds (Kettle).

- 1 Incomparable, E. Hodgson
- 2 Pucelle, Thomas Gibson
- 3 Democrat, ditto
- 4 Gibbons, J. Foulds
- 5 General Barneveldt, T. Gibson
- 6 Bienfait, T. Chippendale
- 7 Narene, R. Birtwistle

Feathered Roses.

Seedling, J. Martin (Kettle).

- 1 Kate Connor, T. Chippendale
- 2 La Belle Narene, ditto
- 3 Comte, E. Hodgson
- 4 Lady Middleton, ditto
- 5 Walworth, T. Gibson
- 6 Violet, E. Hodgson
- 7 Hero, T. Gibson

Flamed Roses.

Kate Connor, J. Houliker (Kettle).

- 1 La Vandicken, T. Gibson
- 2 Aglaia, E. Hodgson
- 3 Triomphe Royale, ditto
- 4 Vainqueur, ditto
- 5 Regina, ditto
- 6 Unique, J. Houliker
- 7 Rose Quarto, R. Birtwistle

Bizarre Breeders.

- 1 Seedling (Martin), T. Chippendale
- 2 Seedling (Martin), E. Hodgson
- 3 Polyphemus, T. Gibson
- 4 Lord Daruley, ditto

Byblæmen Breeders.

- 1 Seedling (Malakoff), E. Hodgson
- 2 Schoolboy (Martin), ditto
- 3 Seedling (Martin), ditto
- 4 Seedling (Martin), T. Chippendale

Rose Breeders.

- 1 Juliet, T. Gibson
- 2 Modest (Martin), E. Hodgson
- 3 Madame St. Arnold, T. Chippendale
- 4 Seedling, J. Martin

Selfs.

- 1 Min d'Or, E. Hodgson
- 2 White Perfection, T. Chippendale



DECEMBER.

Notice of Improvement in Seeds.

DOUBLE INDIAN PINK.—Some three or four years ago, we had a small quantity of Indian Pink seed from Mr. Plattz, of Erfurt, and were struck with the variety and beauty of the marking. We marked a few that were double, and saved the seed. The next year, we had from this seed one-half double, and they were splendid; but wishing to go a-head, we pulled up every one that was single, the instant we discovered it, and saved the seed from them when there was not a single one among them. The result was, that this year we had not more than half a dozen single ones in a hundred, and we really believe that we could have exhibited a stand of twenty-four blooms nearly as large, and quite as double as the ordinary show varieties. They put us quite out of conceit of a family of Mule Pinks that we were coaxing on in the same way; for the Indian Pink was three times as large, and the colours more diversified. The Mule Pinks, though double, are small, and self-coloured, not larger than a good bloom of the Double Sweetwilliam.

DOUBLE CANTERBURY BELLS.—Not many weeks ago, the *Gardeners' Chronicle* announced, as a botanical wonder, that some clergyman in the country had raised a double Canterbury Bell, and as he had sent the editor a bloom, with an offer to inform the world how he raised it, the said editor, after treating it as a great novelty, requested further information. Two years ago, we bought what the growers called Double Canterbury Bell seed, and there were several very nice flowers, with one bell under the other. We marked these, and saved

seed of the best, but we did not destroy the single ones. The second lot from these double flowers gave us about ten per cent. double, and we destroyed all the single ones before they opened; so that, instead of troubling the clergyman to give us the full particulars of how he raised a Double Canterbury Bell, we will engage that a pinch of seed, even of the Germans, shall produce several, and that a pinch saved from double flowers only, with the single ones pulled out before they open, shall give pretty nearly all double; but, however beautiful they may be, the idea of any art or science being necessary to raise them is simply ridiculous.

PLATYCODON CHINENSE.—We should be puzzled to say now where we obtained our first plant of this, which, however much lauded as a greenhouse plant, we believe to be identical with *Campanula grandiflora*, and hardy; but, two or three years ago, we got a pod of seed from it, and sowed it. This gave us about forty plants. They all bloomed the last summer, and, although our original plant was blue, our seedlings comprised dark blue, light blue, and white; two of the blue and one of the white being double. This plant dies down to the ground, and comes up again in spring; runs up a foot high, and bears its flowers at the apex of each shoot. The flower opens almost flat before it dies, and is a very striking and pretty object. Our notion that it is like a plant which we grew many years ago, under the name of *Campanula grandiflora*, is founded on memory only; but as that was hardy, we put out our original plant, and the fact that it stood the winter, and came up much stronger than any of those in pots, has rather confirmed our opinion that it is the same plant. However, it is desirable, whether we are right or wrong in its identity, and is well worth anybody's notice, either to grow a few plants or to raise them from seed. Like all the *Campanulas*, it is a free seeder, and we recommend raising from seed, because it has a tendency to sport, and forty or fifty plants will almost give as many shades of colour. The culture is simple: sow in pans, in March; prick out round the edges, in May; pot singly, in three-inch

pots, and set them out of doors, in July; put them into cold frames, in September, and keep them dry till they move, in spring; then change the pots to a size larger and let them go to flower.

SWEETWILLIAMS.—Here we must speak of another means of improvement, not our own. Mr. Hunt, of Wycombe, determined upon raising the character of the Sweetwilliam, taking our Properties of Flowers as the standard of excellence. Well, his plan was to sow seed from those which came nearest to our standard, then a very long way off. To come up to our notions, there was much to get rid of. The edges were serrated; the flowers, no matter what colour, shade, or marking, were speckled all over, as if dusted. It was only by saving seed from the smoothest edged and the clearest colours that Mr. Hunt could gain upon the enemy, and, after years of perseverance, that he produced some perfectly rose-leaved and free from the mealy spots that pervaded every flower when he began. But Sweetwilliams would run back in two years, if neglected, and unfortunately Mr. Hunt gave the produce of his industry and perseverance to a party who let good and bad bloom together, and completely lost the advantage. It should be recollected that, in all cases of seed-saving, the good alone should be allowed to flower, the bad, or middling, or any at all inferior should be pulled up and destroyed, the instant they appear. Mr. Hunt is doing his work over again, and will propagate his good ones like Pinks.

DOUBLE SWEETWILLIAMS.—We are going to work another way; we are saving seed from double flowers, and when we get a good one we shall name it. We have seed saved from double flowers, and of course many will come double; but we recommend anybody who gets a good one to pipe it as he would a Pink, and name it. The double Sweetwilliam does not seed freely, but we expect to get many double, and at least two or three a year good enough to name. We, however, allow every body to have the same chance that we have, for half a dozen stamps, so long as our little seed lasts.

PANSIES.—We only mention this treacherous flower to caution people against expecting too much, after they have taken all the pains they can to save seed from the best flowers, or the best varieties. We have a batch of seedlings, containing the most extraordinary colours that can be conceived, and more extraordinary than can be described. There were, not very far off, a few of the striped fancy kinds, and we presume the best got crossed somehow, for our first sowing of the seed produced a hundred varieties, half small and good for nothing, the other half better, certainly, and larger, but, though capital for border purposes, not one in a hundred fit to add to our present show varieties. Nobody would begrudge the room, if it were only for the chance of picking out a few that are unlike anything. For the seed of show flowers we have done all that can be done: put the best flowers together, and constantly picked off every bloom that came out of its proper character. Therefore, if the seed does not produce something good, we shall be at fault; but we shall persevere. This seed should be sown in rich ground, for if seedlings get stunted, they rarely improve in size. When the seedlings come, every one that is inferior must be rooted up at once, and you will soon improve your seed.

IMPROVED BALSAM.—When we determined to improve this flower, we journeyed all over the country almost, where we heard they were grown, and bought the plants that had the best and most double flowers, no matter whether well or ill grown, and we saved the seed. The next year, we had many of each, and when they bloomed, we removed those with the largest and best flowers to a house by themselves, and saved the seed. All the seed of the others was given away. Two or three years made a vast difference, because, by saving from the best plant of each colour or variety, the size and doubleness of the bloom increased. We had thirteen seeds of the single yellow one at eighteenpence each, and one of these, when it flowered, showed a disposition to be semidouble. We immediately discarded the rest, and saved seed from the one; the consequence

of this was, that the next year several came semidouble, and one quite double. Away went all the others, and from this double one we obtained the seed which in everybody's hands was good. If there was a new colour, however single, we generally produced it double the third year, though one or two of our best took a longer time. We can now calculate on blooms like Carnations, others like the Camellia, others like the Rose; and good growers have favoured us with flowers three inches across, to show us they can bring them as large as we can.

CHINA ASTER.—To improve this, we have only to confine the blooming to the crown flower, and pull all the others off, and of course only allowing those which are perfectly double to remain on the ground. Every grain will come double, and the seed will ripen sooner than if all be allowed to go to seed. It is true that everybody does not like to pull up flowers that look gay, nor to crop all the side blooms, and thus spoil the beauty of the bed; but if they want to improve their seed, they must do it. If they want to make sure that all shall come double, they must do it. If they want to beat their neighbours, they must do it. You cannot have the beauty of the bed and the quality of the seed too.

STOCK SEED.—There is a mystery about double Stocks, which no one we ever met with could solve, and we are perhaps over-cunning when we fancy we can ensure double Stocks, if we save the seed ourselves. One thing is quite certain, and that is, that the growth of petals instead of anthers and stamens is from exuberance. The question among very knowing people is, can this be brought on by any mode of culture? or is it in the seed? We think both ways. If you can throw it into the seed, it is difficult to remove it by starvation; but it can be done, because we have seen the same seed differ in two people's hands. One has them nearly all single, the other nearly all double, yet both out of the same packet. But we think that seed starved in the saving can never be made double by any amount of excitement. To throw all the vigour you can into the

seed, as soon as eight or ten pods are fairly set, cut off every bit of plant and flower above them, and nip off every shoot that comes afterwards. Throw the entire nourishment of the plant into those eight or ten pods of seed. We did this to such an extreme with a large-flowering yellow Stock, that several people had no single one to save seed from, and, though we had thirty or forty plants in all to save ours from, the first year, we had not half a dozen out of the same number of plants. We can guarantee seventy double out of every hundred, from our seed, and we hope others will adopt our plan, and tell us the result hereafter.

GEORGE GLENNY.

Luculia Gratissima.

FEW plants are more worthy of a place in the conservatory than the *Luculia gratissima*, from the profusion and delicacy of its blossoms, which it produces at a season when all who appreciate the pleasures of a parterre under glass, look anxiously for every opening bud to shed its lustre around.

The ease with which it is cultivated induces me to send you the following hints for its successful culture:—To produce good plants, cuttings should be taken early in April, selecting short woody shoots for that purpose. The cutting should be placed in a small thumb-pot of sand, a single cutting in each pot. The small pot should be placed in a larger pot, filled with drainage, and round the edges with sand. Place a bell-glass over them, and plunge the pot up to the rim in a gentle bottom heat, taking care it is well supplied with water, and the bell-glass wiped every morning. Treated in this way, the cutting will take root in the course of ten days or a fortnight. When it has taken root, a little air should be given, towards the middle of the day, and, by degrees, the glass left off altogether. As

soon as it becomes hardened, it should be potted in a mixture of half sand and half leaf mould, still using a small pot for the purpose. The next shift it receives, a little loam and peat should be introduced, and the plant placed in the warm end of a greenhouse, being careful to keep down the attacks of redspider and thrips, by constantly syringing, two or three times a day. By the end of July, the plant should be large enough to receive its final shift for the season, at which time, if the plant is strong and vigorous, a large shift may be given, taking care the pot is well drained. One-half loam, two-thirds peat and sand, will now be the best compost for it. Still keep the plant well syringed and supplied with water, until the middle of August, when it may be placed out of doors, under a shady wall or hedge, until the first week in September, when it should be removed to an airy part of the greenhouse, and kept moderately dry for a few weeks; after which time, if the pot is full of roots, a supply of manure water should be given occasionally, until the plant blooms, which will be from February to April, and will well repay the trouble taken with it.

J. SALTER.

Amphill Nursery.

Chrysanthemums.

THIS has been a glorious season for Chrysanthemums. The continuous hot weather, throughout the summer and autumn, caused an unusually early development of flower buds, which, unchecked by frost, are now blooming in great perfection. In the suburbs of London, all the gardens are exceedingly gay with this favourite autumnal flower; and even in the midst of the city, in defiance of smoke and every other inconvenience, this last of fair Flora's train is seen, in the Temple Gardens, attired in her gayest holiday dress of many colours, in pleasing contrast to that gloomy old gentleman, *November*

L'og, who, wrapped in his murky mantle, so often intrudes his unwelcome company, at this season of the year. The thousands of visitors to the Temple Gardens testify to the increasing celebrity of the Chrysanthemum, and great merit is due to the gardeners of the Inner and Middle Temple, Messieurs Broom and Dale, for the judicious arrangement of colour and noble flowers they have produced, these gardens presenting an appearance altogether unique, in the heart of London. In the principal bed of the Inner Temple, under the care of Mr. Broom, are splendid blooms of Queen of England, Cassy, Cardinal, Alfred Salter, Phidias (new), King, Chevalier Damage, Leon Leguay, Auguste Mie, Annie Salter, Versailles Defiance, Gluck, and many other esteemed favourites. The Middle Temple Gardens, under the direction of Mr. Dale, are differently arranged, the large blooming varieties being on the east side, and Pompones, such as Drin Drin, Nulli, Dr. Bois Duval, &c., in the circular beds, on the lawn, which have a very pleasing effect, being literally covered with flowers. Among the larger kinds, he has beautiful flowers of Beauty, King, Chevalier Damage, Alfred Salter, Cassy, Aregina, Le Prophete, Leon Leguay, Christine, Queen of England, and other leading sorts.

At the Versailles Nursery, near Hammersmith Turnpike, is the largest collection in England, numbering upwards of seven hundred varieties. Here are grown not only all the finest named flowers, but very many seedlings, from among which some first-rate novelties have been selected, to send out in 1858. Mr. Salter is not dependant upon out-door blooms, having converted a large greenhouse, about eighty feet long, into a *winter garden*. Here the Chrysanthemums are arranged on either side of serpentine walks, while the various tints of yellow, white, rose, and crimson, are agreeably diversified with plants of variegated foliage, and a back ground of Orange trees in fruit, Pampas Grass, Araucarias, Ferns, and Bamboos, which give a pleasing coup d'œil to the whole. Among the large-flowering kinds, are fine flowers of Leon Leguay, Cardinal, Ruth,

Aregina, Aristee, Cassy, Auguste Mei, Gluck, King of Anemones, Alfred Salter, Golden Cluster, Versailles Defiance, Pio Nono, Etoile Polaire, Beauty, Queen of England, Dupont de l'Eure, Defiance, Chevalier Damage, Rolla, and others. The pompones are so planted as to form nice banks of bloom. Among the increasingly attractive section of anemone pompones, are several new varieties, of beautiful form,—Madame Sentir (pure white), Mr. Dutour (pure white), Mr. Astil (bright gold), Madame Molinie (rose and light centre), and Montel (white and yellow centre). Of the new large flowers, for next season, the following have attracted universal admiration:—Golden Queen of England, large yellow, in form and size equal to Queen of England; Madame Leo, ivory white; Augustine, rosy lilac; Aimee Ferriere, white, delicately tipped rose, a great improvement on Hermine; Progne, splendid crimson, the brightest colour known. Louisa, pure paper white; Louis, a large rose anemone.

Although the Chrysanthemum is in such general cultivation throughout the kingdom, few persons are aware of its capabilities as a show flower; and those who have, this season, visited the exhibition at Stoke Newington, for the first time, must have been astonished at the magnificent blooms of Themis, King, Queen of England, Beauty, Plutus, Dupont de l'Eure, Nonpareil, and Hermine, that were there put up by Messrs. Wortley, James, Bird, and other growers.

V.

Fancy Geraniums.

HAVING, in the last number of the *Midland Florist*, stated my intention of giving a list of this useful class of plants, I will now proceed to fulfil my promise. With regard to their cultivation, it is necessary to state, that they are benefitted by a little more warmth, and a lighter compost than is used for the large-flowered or

show kinds. The following are all very beautiful, and deserve extensive cultivation. The first twelve are the best of the old varieties, and may be procured at a moderate price.

Cassandra (Ayres).—Crimson and white, of fine form, good habit. A very useful show variety.

Celestial (Ayres).—Very bright rose, fine shape and habit, free bloomer. A fine variety for exhibition.

Delicatum (Ambrose).—White, with light rose spot on the upper petals; free bloomer and good habit. Very desirable.

Lady of the Lake (Turner).—Crimson, with lilac margin; good habit. Distinct and good.

Lady Hume Campbell (Henderson).—Bright crimson, with lilac blue centre; small growth, but very free bloomer. A fine variety.

Madame Van de Weyer (Clarke).—Warm violet crimson; white margin, lower petals light rose. Free and good.

Madame Sontag (Ambrose).—Crimson purple, with light margin; lower petals pencilled with lilac.

Ne plus ultra (Turner).—Purplish claret, suffused with violet; good form and habit.

Perfection (Ambrose).—Bright rose and white. Very free and good.

Resplendens (Ambrose).—Crimson and white. Not very first-rate grower.

Richard Cobden (Ambrose).—Dark purple and crimson, good shape, free habit.

Vivid (Turner).—Carmine, with light margin. Good.

TWELVE NEWER VARIETIES.

Carminatum (Turner).—Lower petals pink, mottled with crimson; upper petals carmine and white; good shape.

Crimson King (Turner).—Crimson purple, with lilac margin; dwarf habit. Good.

Cloth of Silver (Henderson).—Pure white, with delicate rose blotch on the upper petals. Fine.

Emperor (Turner).—Lower petals white, mottled with purple; dark upper petals, and good habit.

Evening Star (Henderson).—Purple, margined with white; good shape and habit. One of the best.

King (Turner).—Upper petals violet crimson, lower petals mottled crimson. Large.

Madame Rougiere (Turner).—Crimson purple, with white throat and margin; strong habit. Very fine.

Mrs. Coleman (Turner).—Purple, with light throat and margin; free bloomer, and good habit.

Minnie (Turner).—Rosy crimson, with light throat and margin.

- Omar Pacha* (Turner).—Bright crimson, free grower, and useful for exhibition.
- Queen of Roscs* (Turner).—Fine show flower. Warm rose and lilac, with light margin.
- Sir Joseph Paxton* (Turner).—Purple marone, with lilac margin; fine form. Good.

BEST NEW ONES, LET OUT IN THE AUTUMN OF 1857.

- Acme* (Turner).—Purple marone, with clear white throat and margin; good form. Very similar to Evening Star.
- Adela* (Turner).—Rosy lilac, with white throat. Likely to be useful.
- Clara Novello* (Turner).—Upper petals crimson purple, margined with white; lower petals rose. Fine.
- Clara Novello* (Henderson).—Lower petals delicate rosy crimson, upper petals rich rosy crimson, margined with white.
- Countess of Devon* (Veitch).—White, with lake spot, on under petals; upper petals rosy purple, lake margin.
- Mrs. Turner* (Turner).—Vivid carmine rose, white throat, good form and habit.
- Princess Royal* (Turner).—White, with lilac blotch on upper petals.

JOHN DOBSON.

Woodlands Nursery, Isleworth.

Raising Trees for Pot Culture of the Peach.

BY G. GLENNY.

ALL plants intended for pot culture, should be uniformly, and from their earliest date, confined within certain limits. Now, the first things to be considered are the stocks upon which our Peaches are to be worked. Whatever may be a man's ability as a gardener, if trees are put into his hands not properly worked, all the skill he can employ upon their cultivation can never rise above, or counteract an evil which, sooner or later, must be fatal to its consequences.

The Brussels stock, having first a certain Plum budded upon it, makes a stock that will suit ANY PEACH OR NECTARINE, not even excepting the "Stanwick Nectarine." For many years it has been made manifest

to me that there is a great mistake as to soil, and the observation made by Mr. Rivers, namely, "that we are but children in fruit culture," is perfectly true. The result of study, practice, and observation assure me that all excrementitious matters are altogether unfit for use in the cultivation of these trees. One of the great evils arising from their use is, that it causes a CONTINUOUS GROWTH, which lasts for some six, seven, or eight months; whereas the entire growth should be made in three months, at most—that is to say, by Midsummer, at the latest, the entire length of each shoot should be complete, AND THE TERMINAL BUD AT THE APEX OF EVERY SHOOT SHOULD BE FAIRLY AND FULLY DEVELOPED; for, remember, you are to discontinue that barbarous system of "cutting back," or, as it is called, "shortening the shoots." No good cause can be given why you should grow the annual shoots of the Peach from twenty to thirty inches in length, and then have to "shorten" them at least one-third, or, perhaps, reduce them to half their length. The worst of consequences too often follow this system of mutilation. THE TERMINAL BUD ON EACH SHOOT SHOULD NOT BE REMOVED. When you have trees under glass, you can make them yield to any mode of culture; but take care never to FORCE them into a state of luxuriance. Luxuriance in the branch is not always a sign of health, STILL LESS IS IT A SIGN OF FERTILITY.

By high feeding, that is, by the use of strong manures, whether in a solid or liquid state, great changes are often produced in the size of fruit; but it rarely happens that their quality is improved, while the vital forces of the tree are seriously impaired, and weakness and decay are sure to follow such a system of culture. Nor is this the only evil—the certain result in the use of excrementitious matters; its tendency is also to keep up a CONTINUOUS GROWTH, till the SUN HAS BECOME TOO WEAK TO EVAPORATE THE CRUDE AND WATERY MATTERS ABSORBED, AND, AS A CONSEQUENCE, THE WOOD CANNOT RIPEN. When those strong manures are employed in its cultivation, their use is to keep the tree in

a perpetual state of growth, and while the shoots continue to increase in length, the leaves cannot, and do not, perform their proper functions. At the base of the leaf there is a bud, or buds, and it is the paramount purpose of that leaf to mature the bud at its base. This is one of the fundamental purposes of leaves to a tree. The inorganic substances are absorbed by the roots, and are pumped up, as it were, through the stem and branches, into the leaves, where, by the aid of the solar influences, they become decomposed, and transformed into organizable matter, BY WHICH MEANS ALL THE ENDS AND PURPOSES OF VEGETABLE LIFE ARE FULFILLED.

Get the number you may require of the BRUSSELS STOCK. November is the best time to get them. As soon as they arrive, put them into a light sandy loam; and, if their roots will admit of it, use the size known as large forty-eights. They will want no "crocking;" put one flat piece to cover the hole, so as to keep the roots within the pot, and upon it throw a few of the lumps, which will act as drainage. After they are potted, they should be plunged rather deeply,—that is, covering the rim of the pots a good inch below the surface, in an open situation of the kitchen garden, and at distances two feet from row to row, and a foot plant from plant. They will want nothing doing to them, other than keeping free from weeds. Don't attempt to cut them back, or in any way use the knife about them, until the time arrives for budding them, which should not be done before the end of August, or beginning of September. I may observe, that being in pots, they will not be ready to receive the buds so early as those planted in the ground. They may, however, be examined, to see if the bark will rise; and when it will do so, bud them as NEAR THE GROUND AS POSSIBLE, with the old WHITE Magnum Bonum Plum. After they have been done five or six weeks, look over them, take off the matting, and retie them, but not so tight, leaving sufficient room for the stock to swell.

In November, or not later than December, they should

be taken up, and potted into twenty-fours, using the same soil—namely, maiden loam, taking CARE NOT TO USE MANURE OF ANY KIND. The pots must now be well drained; and if there be convenience to shelter them till the beginning of March, they will be all the better for it; but don't put them anywhere where the least warmth can reach them—the object being solely to save them from the effects of heavy rains. They should be again plunged, the same distance as before, but not so deep, leaving the entire rim of the pots to be seen above the surface. Towards the middle or end of the month (but this will depend upon the season, whether it be early or late), the heads of the stocks should be cut off to within four inches of the bud. They should be often looked over, and may be as often assisted by sprinklings from a fine-rosed watering pot. As the buds grow, and become heavy, they are very subject to be blown off, or broken by wind and rain, unless made secure. In nurseries, this is done by tying the shoot to the piece of stock left above the bud. But if a little more care were exercised, and a small stake put to each plant, so much the better. It must be observed, that *this shoot is to be the stem* of the tree, and means must be employed to have it perfectly straight. By the middle of September, the wood of each shoot will be sufficiently ripe, at eighteen inches from the pot, to receive a bud; and here YOU HAVE GOT A STOCK THAT WILL SUIT ANY PEACH OR NECTARINE—no matter what it is, or where 't comes from.

The following is a list of Peaches and Nectarines best suited for pot culture, and ALL of which “do” upon a stock made PRECISELY AS I HAVE STATED. Peaches—Royal Kensington, Noblesse, Warburton Admirable, Violette Native, Acton Scott, Barrington; Nectarines—Hunt's Tawny, Pitmaston Orange, Old Red Roman, Duc-a'-Tilley, Violet Native, Elruge.

Presuming that the stocks have been budded with some of all the above sorts, before the heavy rains of winter come on, it will be desirable, if possible, to remove them under cover. A late Vinery would be an

admirable place for them, the object being to keep the soil in the pots in a healthy state. In February, they must be cut back to within five inches of the bud, and placed on a south border, fully exposed to the sun. They should stand in rows, two feet apart, and a foot plant from plant, observing to turn the pots so that the buds face the west. The buds should be often looked over. There is a kind of weevil, which, in some seasons, totally destroy the buds of Apricots; and I have known them to attack Peaches and Nectarines. The latter end of April, or early in May, the pots should be three parts plunged, of course, in the same place. This must be done to obviate the necessity of watering. When water is required, use rain-water, and nothing else, but not too much of that; keep the trees rather DRY than otherwise. Avoid everything calculated to produce strong luxuriant growth. After what I have said, I need hardly caution the reader against the use of liquid manure, which, in this case, and for this purpose, ought to be called liquid poison. By the end of August, or beginning of September, they should be taken up, and placed immediately, under a south wall, so as to get the wood thoroughly ripened. Again, as winter comes on, get them under cover, for the purpose before explained. They will require to be "snugged," that is to say, that part of the stock ABOVE the bud must be cut off close to it. Early in February, place them out, as before, on a south border, in rows, three feet apart, and the trees at least two feet plant from plant. The middle of March, NOT BEFORE, they must have their heads taken off, to within an inch and a half, or, at most, two inches from the bud. "Maiden" plants should always be cut back as close as possible. Each tree should not be allowed to make more than five shoots, and these should be so trained as to be at equal distances from each other. Above all things, they must be kept free from insects. If greenfly comes upon them, pick off the curled leaves, wet them with the syringe, and dust the parts over with Scotch snuff. As soon as the weather becomes so warm as to cause them to require to be fre-

quently watered, they should be half-plunged; or, what would be very much better, place each pot in an empty one; say, for example, the trees are now in twenty-fours; set each plant in a sixteen-sized pot, which will be a sufficient guard against the heat of the sun's rays. They must not be allowed much water, or they will again start into growth. Do not mind if they flag a little, or get red spider. A month or six weeks in a dry atmosphere of ninety degrees will make them all that they should be. Before the autumn is too far advanced, they must be shifted into the pots I advised they should stand in, namely, sixteens, or pots one foot in diameter, that is, in the clear. They must be well drained, taking care that the drainage is covered with lumps of turf, or the coarse parts of the soil, which, as I have said, should be maiden loam, of rather a light texture, and a small portion of coarse river sand mixed with it,—the sand used by the plasterers, and well washed after their manner, than which nothing could be better. They will require nothing more this season than being kept in a cold house, and the worms out of the pots. Here, then, is a maiden Peach or Nectarine, fit to put into any gardener's hands, to cultivate permanently in pots.

Fruit Culture.

No. IV.

THE next thing to be thought of in the management of the Vine, is the making of the border,—a vexed question certainly, and one on which volumes have been written, and in which cultivators have gone to the most opposite extremes. In the last year's volume of the *Gardeners' Chronicle*, mention is made of some good Grape growers being at no more pains with their borders than picking out a hole with a pickaxe, and putting in the plant; while, on the other hand, there

are many who use all kinds of manures,—the carcasses of dead animals, blood, and other matters. These extremes may have their admirers, and may succeed, still they are very dangerous courses to pursue,—one not being sufficiently good to grow the Vines, while the other produces strong rank growths, which do not ripen well, and oftener fail than succeed. Now I have had some experience in Vine borders and Grape growing, and can say with confidence, there are no borders grow Grapes so well as those formed with good maiden loam, from a rich pasture, taking the first spit, after the turf is off. This should be procured twelve months before it is wanted, and laid in a heap, and to two parts of the loam add one part of rotten dung, and one part of road scrapings, or lime rubbish, according to the requirements of the loam. If it is of a heavy nature, use the lime rubbish, to make it porous, but if too light, it will be benefitted by the road scrapings. This mixture must be turned over five or six times, during the twelve months, that it may be well incorporated and sweetened; and at each turning, throw on the heap a quantity of soot, which will assist in destroying all kinds of insects, and benefit the plants.

In making the border, the whole of the soil must be removed three feet six inches to four feet deep, and at the bottom, a foot or eighteen inches of brick bats or other drainage must be placed. Here I would refer the reader to Mr. Glenny's excellent remarks, in the *Midland Florist*, for December, 1856. When speaking of the Hollyhock, he says, we must drain well, not only by placing drainage under our plants, but also see that the water can escape from the drainage, otherwise it is completely useless. These remarks apply with as much or more force to the Vine, or, in fact, to all fruits, for if the water is allowed to stand amongst the drainage, we might as well put the plant into a bog at once, and success is anything but certain. Having put the drainage into the border, place over it a layer of turf, to prevent the soil from running amongst it, and fill up to the top with the compost, making it tolerably firm, that it may

not sink too much. Perhaps the best time for making a Vine border is in February or March, as the soil will then be fresh for the plants, and not soddened, as it would be, if made in the autumn, and had had the winter's rain upon.

Having now got our plants, house, and border, we must next prepare for planting. For this, the young Vines should be cut down as low as convenient; that is, if they are to be planted inside the house, cut them down to a single eye; but if they are to be planted outside, leave sufficient stem to reach into the house, removing all the buds but one or two at the top. Two may be left, in case of accident, but only one must be allowed to remain after the plant has broke. The Vine should not be cut back later than November or December, for, if the wound has not time to heal, it is liable to bleed, which would injure the plant, and weaken it for some seasons to come. Previous to planting, the Vines should be allowed to break, and the buds to grow three or four inches, when they will be in a fit state for that operation. Turn the Vine out of the pot, break the ball so as to loose the roots, and fix the plant in its position, having previously placed a little rich light soil in the hole, to give it a start. Make the soil firm about the plant, and give a slight watering, to settle it about the roots. The plants will soon begin to make rapid growth, and may be assisted by a moderate heat, say from sixty to sixty-five degrees; and a nice moist growing atmosphere should be kept up, by the use of the syringe, or by pouring water on the pipes or flues. Tying up the shoots, to prevent injury, must be attended to. Air must be given on all opportunities, to cause a strong healthy growth; and every encouragement must be given, by the use of weak liquid manure, and water, when required. As soon as the shoot has made eight or nine feet of growth, it should be stopped, to throw the nourishment into the main stem. All side shoots must be removed, as soon as they appear, leaving one leaf on each shoot, the bud of which will break again. The tendrils must also be removed as they appear, as

they are useless to a cultivated plant, being only required where the Vine is climbing, or has to support itself. Having got the vine to make strong growth, take care that it is also well ripened, by the admission of air, and as much sun as circumstances will allow, and if there is anything like success, a crop of fruit may be expected the next year. But here a caution is required, and one of no small importance, particularly to amateurs, as much of the after success may depend upon it. It is, not to be too greedy, for a year or two. In pruning, do not leave more than the Vine will be able to support. As it has only made one year's growth, it will be insufficiently provided with roots to support a great length of rod. Four feet is sufficient for the first year. With that length, the whole of the buds will be sure to break strong, whereas, if longer, only the top buds would break strong, while the bottom ones would break weak, if they broke at all, and no after management would remedy this defect. In the first pruning, if the buds are too thickly placed, part of them should be removed, being careful to leave them alternately on each side, and if they are left eighteen inches apart, they will be amply sufficient. After pruning, the Vine should be painted over with a mixture of soft soap, sulphur, and quick lime, with a little soot, to give colour. This will destroy redspider, or any other insect that may be harbouring about the stem, and may be a saving of endless trouble and disappointment, in the coming season. I may here remark, that in the management of the Vine, or indeed any other plant, cleanliness is a great point to be looked after; without it, success is hardly to be expected.

WILLIAM SHIPLEY.

Heywood Gardens, Westbury, Wilts.



NEW ANNUAL (*Linum Grandiflorum Rubrum.*)—This beautiful annual is indeed a real acquisition to the flower garden, there being so few really good annuals lately introduced. The colour is a brilliant crimson, habit dwarf, a profuse bloomer, easy of cultivation as

the common flax, and keeps in flower till the frost cuts it off. It forms a nice plant for a bed, or as a border to other colours. This annual is no take-in.—F. H., *Lydbury North, Salop.*

ERRATA.—Page 346, line 20, for *P. angulare*, read *P. angulare proliferum*. Page 376, line 17, for *Amelia*, read *Aurelia*; line 24, for *Competition*, read *Competitor*.

Reviews.

DESCRIPTIVE CATALOGUE OF EVERGREEN AND DECIDUOUS TREES AND SHRUBS, &c., GROWN BY MR. J. W. EPPS, MAIDSTONE AND ASHFORD.—We have here an instructive catalogue, in five divisions, with botanical name, English name, and remarks to each class. It is seldom our pleasure to notice one so well arranged, and, as far as we have seen, the names are correctly spelt, which is a great desideratum. We cordially recommend it to be added to the collection of every amateur.

GLENNY'S GARDEN ALMANACK AND FLORISTS' DIRECTORY, FOR 1858.—This almanack has now, as the editor remarks, attained its majority, having been issued for the twenty-first time. It is full of instructive matter, comprising a complete garden manual, or calendar for every month of the year, a very good chapter on seeds and seed sowing, a select list of seeds, an almanack, hints to amateur gardeners, novelties worth notice, select lists of Geraniums, Dahlias, Pansies, Tulips, Chrysanthemums, Rhododendrons, Hyacinths, &c., besides a large amount of useful information. We can safely recommend it to the consideration of our readers.

Queries and Answers.

D. C., *Dursley*.—"Choice Tulips, twenty leading varieties, for twenty shillings," &c.—Yours is not the only case. I have seven other complaints, from different localities, and all of the same individual. I can suggest no remedy better than exposing the system. It is high time such practices were put a stop to. Yet, if amateurs will allow themselves to be thus victimized, under the impression that they are *purchasing cheap*, they must, in part, blame their own indiscretion, and pocket the loss.—JOHN WALKER, *Winton*.

E.R. would be much obliged by directions as to the management of Tom Thumb and a few other Geraniums, which she

has removed from the ground to a small greenhouse. They were bedded in pots, and appear to require repotting, as the roots are coming out at the top, but she fears *this* is not the right season. May she cut off exuberant shoots of Fuchsias, &c. *now*? She is trying to keep a few Verbenas, Calceolarias, Petunias, &c., to take shoots from in the spring. Any directions as to these will also much oblige.—Doubtless the Geranium pots are full of roots, and it would be very difficult to get water to go through the soil. We would turn out the ball, shake out the sour mould, trim the lower parts of the root, cut in the head very considerably, repot them in the same sized pot, with fresh soil, cover them up for a few days, and water them but seldom; in fact, never, while the surface of the soil is damp. It is not the time of the year we should select for such operations, but, under the circumstances, it becomes necessary. When the roots begin to mat round the sides, change the pots to a size larger. Fuchsias are better left to get through the winter almost dry. When they begin to move, prune them into such shape as will make the new branches form a good plant. Verbenas, Petunias, and Calceolarias should be kept from frost, heat, and damp; but, if the pots are full of roots, let them be changed. Let all these things be cut pretty close in, that they may not work their roots too hard. Water seldom. After once settling the earth about their roots, they require no more, till they are nearly dry. Damp is more fatal than frost, in winter. They may all be kept in a greenhouse, but do not want heat. Many keep them all in a cold frame. If the greenhouse be damp, or inclined to be so, light a fire, and open the top lights, to let out the vapour which will be created in drying the house. One of the principal points to attend to, is not to water any of them before they want it, and this is a rule that holds good with plants of all kinds, in a greenhouse; and we may add, that more mischief is done by general waterings than people are aware of. We observe, perhaps, that the plants are getting dry, and some really want moisture, and then carelessly give it them all, whereas one half may not require it so soon, and thus get damaged.

Will you please give me the best plan for preserving Dahlia roots through the winter?—A SCOTCH PANSY GROWER.—This requires us to secure two or three conditions only. They must be cool, but they must not be damp, nor must the frost reach them. We have, for years, hung ours upon nails, on the back wall of the greenhouse, under the stage; the nails being numbered, and the sorts corresponding with the numbers, being all hung on the same nail. Thus, if we have one, two, or half-a-dozen of No. 10, they are all hung on No. 10 nail. But everybody has not got a greenhouse. Keep them, then, in a dry cellar, that the frost never reaches; in the absence of this, pack them in mould or sand, taking care that they are

sufficiently protected from frost, by the outside layer. When we cultivated largely, and had some hundreds to preserve, we piled them up, on a ridge, like a bank, on the dryest part of our ground, laid six inches of straw all over them, and then covered the whole with six inches of earth, just as we pit Potatoes, taking care to place them all stems downwards, that any moisture in the hollow stem might drain out. But, no matter how you contrive, so that you keep them free from heat, frost, and damp.

Notes for the Month.

CHRYSANTHEMUMS.—Take off suckers from all late-flowering plants, as soon as possible, put them in sixty-sized pots, and keep them in a cold frame, or in any other sheltered place, that is capable of protecting them from the sharp frosts, through the winter. By so doing, you ensure bloom at least three weeks earlier, get a larger flower with better petals, and bloom them altogether with the earlier varieties. It also ensures your stock, as some of them will not stand a severe winter in the open borders, in damp situations. I have lost barrowloads of good varieties, after a sharp frost, followed by rain, through omitting to do this. If you intend growing for show, on single stems, the sooner they are started the better, as it gives you an opportunity of stopping oftener, and getting a better specimen plant than otherwise you would have. The most difficult sorts to get early blooms from are, Themis, rose; Auguste Mie, red, tipped gold; Christophe Colomb, reddish violet; Beauty, peach blush; Defiance, white; L'Emir, light red crimson; Rosa mystica, creamy rose; Plutus, yellow; Etoile Polaire, golden yellow; Stellaris globosa, carmine crimson and white; Rolla, purple lilac; King, light peach; Albin, crimson; Campestroni, deep rose; Cloth of Gold, gold. **Large Anemones.**—Fleur de Marie, large white; Nancy de Sermet, white; Madame Gouderau, sulphur and white; Eclipse, sulphur; Gluck, golden orange; King of Anemones, crimson purple; Marguerite of Norway, red and gold; Marguerite d'Anjou, nankeen. These are the best anemones that require early attention in starting. The pompones are, Bob, dark brown; Bijou de l'horticulture, sulphur white; Riquiqui, violet plum; Adonis, rose and white; Fleurette, violet purple; Graziella, blush lilac; Helene, rosy violet; Jonas, bronzy yellow and crimson; Hector, yellow and brown; Apollon, gold; Boule rose, rose lilac; Princesse Mathilde, sulphur white. These are twelve very good ones, that are rather later than the others with me, consequently I like to start them as early as I can in the autumn, to allow of

early stopping, to keep good foliage and bushy plants. If not convenient to take off your cuttings now, make sure of them not being damaged by frost, by putting coal ashes, sawdust, or some other protection round the roots.—S. BROOME, *Temple Gardens*.

CINERARIAS.—The lovers of this really beautiful class of plants will now begin to be repaid for the care and trouble they have had in their cultivation, by a varied and continual stream of beauty; varied, because, from one pod of seed, we may get ten or twelve distinct colours; continual, because, it is well known, the Cineraria enlivens the appearance of our green-houses at least five months in the year. Those plants that are in frames, must be well looked after, and plenty of covering must be always ready. All the air possible must be given, at favourable opportunities, by tilting the lights in wet weather, and drawing them off when fine. Nothing is more conducive to the health of all plants than the judicious application of air. The green and also the blackfly must be well kept down, or they will spoil the beauty of the bloom. Specimen plants will require attention, in training out the young shoots as they grow, and also pegging the leaves down, so as to give as much air as possible to the centre of the plant. Endeavour to keep them dwarf, and as near the glass as possible.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

FLOWER GARDEN.—Protection should be given to the more choice plants and roots, which might be injured by frost, snow, or excessive rain, particularly Hyacinths, Tulips, Anemones, Carnations, Pinks, &c. The beds of Tulips and Hyacinths will be greatly benefitted by a protection, which may consist of a low awning of mats, or of litter; but when the weather is favourable, these should be always removed. If any foliage appears above ground, a little dry mould will greatly protect it. Anemones, planted in beds, should also have protection. Carnation and Pink layers, in pots, should be covered from snow or rain, and if kept moderately dry, severe frost will not injure them, though they must have plenty of air. Tender seedlings must also be taken care of. Newly planted trees and shrubs will be greatly benefitted by protection at the roots, with litter. Flowering shrubs may be pruned as they require. This should be done, not with the shears, as is too often the case, but with a knife, and in such order as to keep the plants distinct and clear of each other, which is a point very frequently neglected, but if attended to, the plants are seen to much greater advantage.—RICHARD EDWARDS, *Nuthall*.

FRUIT GARDEN.—Continue to prune Apples and Pears, both espaliers and those against walls. They are quite hardy, and there is no danger of damage from frost. Standards, either in the garden or orchard, should be examined, and occasionally pruned, where required, cutting out all crowded and irregular

branches. These are not like espaliers, but may have full scope for their growth, and be allowed to branch out freely; all that is necessary is an occasional looking over. Where the trees are too close together, they should be thinned, by cutting out as required. Where the branches cross each other, they should be cut out, leaving all the principal branches, and keep them moderately thin and at an orderly distance. This will cause abundant produce, and the fruit will always be large and handsome. Continue to plant trees, where required, prune Gooseberries, Currants, &c., and plant Raspberries.—J. Frost, *gardener to J. T. Edge, Esq., Strelley Hall.*

FUCHSIAS.—Towards the latter end of the month, young plants, that were struck in August, may be potted off singly, into pots, using some rich soil for the purpose. They will grow very fast, if placed in a temperature of fifty degrees, and make handsome plants to flower in June or July. The principal part of the stock will be at rest, and little advice is necessary.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—Take advantage of every fine day, when the weather is open, to admit fresh air to the plants, which, notwithstanding the unfavourable season, is highly necessary, to keep them hardy and strong. The lights should be opened about ten o'clock, and closed about three or four. Watering must be done moderately, and only when the plants require it. Decayed leaves must be carefully removed, to preserve health as well as the beauty of the plants. Give artificial heat only when really required in consequence of dampness, as, if too much is given at this time, the plants are liable to bloom weakly, and not in their proper season.—EDWARD KEYS, *gardener to F. E. Shipley, Esq., Hempshill Hall.*

HOLLYHOCKS require but little attention this month. Avoid dampness, and too much watering, and give air when favourable. If the plants are in frames and plunged in cinder dust, close to the glass, it is all the protection they require.—WILLIAM CHATER, *Nurseries, Saffron Walden.*

KITCHEN GARDEN.—Cauliflowers and Lettuces in frames should be looked over, all the decayed leaves removed, and, in favourable weather, the lights should be taken off, but they must be put on again before night. Plants in beds should have hoop arches over them, covered with mats, which must be taken off when the weather is open. Continue to sow small salad once a month, Mustard and Cress, and Radishes, in light beds, only covering over with as much earth as will hide the seeds. About the latter end of the month, if favourable, sow, on a south sheltered border, a little Short-top Radish, pretty thick, and cover with straw. A few early Peas, such as Early Emperor, Daniel O'Rourke, and Sangster's No. 1, may also be sown, and any that are above ground should have the earth drawn to their stems, to protect them from cutting winds.

This must be done on a dry day, and the earth should be broken, before it is drawn to the plants.—JOHN BEARDMORE, *gardener to the Hon. and Rev. J. Vernon, Nuthall Rectory.*

PANSIES.—The directions for this month will, of necessity, be rather short, as all out-door operations depend much upon the weather. Frosty weather must be anticipated, and every plant of this class should, by this time, be in its winter quarters. Little is necessary to be done; giving air at every favourable opportunity, and watching for slugs, is all that will be required.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—Towards the latter end of the month, stop back those plants that are required to flower in the month of June. After this is done, let them remain moderately dry, until the eyes are prominent. They will also be benefitted by a little warmth, for a few days, where it can be done conveniently. It must be understood, that plants, to flower in May, will not require stopping back at all. In stopping, be careful to nip out every shoot, whether long or short, or a straggling head of bloom will be the consequence. All shoots that are long enough, may be trained out, so as to admit light and air to the middle of the plant. On no account excite the plants into growth, until the turn of the days. Many plants lose their first lot of flowers through being excited too soon. Maintain a temperature of about forty-five degrees. Remove all decayed leaves, as soon as they appear.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

ROSES.—Attend to the directions for last month. Tender kinds, such as Teas and some of the Chinas, if in exposed situations and cold soils, should be taken up and laid in a shed or other sheltered place, with the heads close to the ground, so that the roots and all may be covered in severe weather. *In Pots.*—Shorten to two, or, in the strong growers, three eyes. Let them remain in a cold pit, till wanted to be brought forward, and, at all times, give plenty of air.—H. DAVIES.

Floral Exhibitions.

TULIP SHOW.

At Mr. Brown's, Coronation Gardens, Shaw Heath, Stockport, 30th May.

The landlord offered liberal premiums, as an encouragement to amateurs, and the exhibition was considered a good one. Several exceedingly perfect specimens were entered for competition.

Feathered Bizarres.

Premier.—Charles, X. J. Turner.

- 1 Charles, X., J. Turner
- 2 Magnum, J. Hart
- 3 Charles, X., ditto
- 4 Lord Lilford, ditto

- 5 Catafalque, J. Warren
- 6 Catafalque, J. Turner
- 7 Duke of Devonshire, J. Hart
- 8 Apelles, J. Clayton
- 9 Duc de Savoy, T. Fowles

Flamed Bizarres.

Premier.—San Joe, J. Hart

- 1 San Joe, J. Turner
- 2 Polyphemus, J. Clayton
- 3 San Joe, J. Greaves
- 4 Lustre, T. Fowles
- 5 Charles, X., J. Hart
- 6 Charbonnier, J. Hart
- 7 Jupiter, ditto
- 8 Flame de Garde, T. Handford
- 9 Jubilee, J. Hart

Feathered Byblæmens.

Premier.—Bienfait, J. Turner

- 1 Beauty, J. Turner
- 2 Bienfait, T. Fowles
- 3 Unknown, ditto
- 4 Queen of the North, J. Hart
- 5 Incomparable, ditto
- 6 Edgar, ditto
- 7 Washington, T. Fowles
- 8 Prince Albert, J. Turner

Flamed Byblæmens.

Premier.—Denman, L. Hussey

- 1 First-rate, J. Hart
- 2 Violet Amiable, ditto
- 3 Incomparable, J. Clayton
- 4 Alexander Magnus, J. Turner.
- 5 Adelaide, J. Turner.
- 6 Bienfait, G. Greaves
- 7 Lancashire Hero, T. Fowles
- 8 La Belle Narene, J. Clayton

Feathered Roses.

Premier.—Lady Crewe, J. Turner

- 1 Lady Crewe, T. Fowles
- 2 Queen Anne, J. Clayton
- 3 Chellaston, J. Hart
- 4 Heroine, J. Turner
- 5 Comte de Vergennes, ditto

6 Dolittle, T. Fowles

7 Jupiter, J. Hart

8 Aglaia, J. Turner

Flamed Roses.

Premier.—Unique, J. Hart

- 1 Unique, T. Fowles
- 2 Lady Dougal, J. Hart
- 3 Aglaia, ditto
- 4 Triomphe Royale, ditto
- 5 La Vandicken, ditto
- 6 Sponcer's Brilliant, ditto
- 7 Monetti, ditto
- 8 Vesta, J. Turner

Bizarre Breeders.

Premier.—Kossuth, J. Hart

- 1 Pilot, G. Greaves
- 2 Duke of Kent, J. Hart
- 3 Willison's King, ditto
- 4 Seedling, ditto
- 5 Polyphemus, H. Warren

Byblæmen Breeders.

Premier.—Seedling, J. Hart

- 1 Princess Royal, T. Handford
- 2 Duchess of Sutherland, J. Hart
- 3 Perfection, J. Turner
- 4 Chellaston, J. Hart
- 5 Lord Vernon, T. Fowles

Rose Breeders.

Premier.—Catherine, J. Hart

- 1 Lady Stanley, T. Handford
- 2 Juliet, J. Hart
- 3 Village Maid, J. Turner
- 4 Kate Connor, J. Hart
- 5 Anastasia, J. Clayton

Selfs.

Perfection (white), J. Hart
 Min d'Or (yellow), T. Fowles

TULIP SHOW.

At Mr. Thomas Terry's, White Hart, Hooley Hill, May 30th.

Premier Prize for the Best Pan of Two Flowers.—Charles, X. and San Joe, T. Leech.

Colts' Prizes.—1. Duchess of Newcastle, S. Knowles. 2. Violet Amiable, J. Lees.

Feathered Bizarres.

- 1 Charles, X., T. Leech
- 2 Apelles, Z. Peacock
- 3 Surpass Catafalque, W. Clayton
- 4 Lilford, A. Leech
- 5 Sidney, J. Buckley
- 6 Waterloo, W. Clayton
- 7 Royal Gem, T. Mellor
- 8 Polyphemus, R. Mills

Flamed Bizarres.

- 1 San Joe, R. Peacock
- 2 Charles, X., J. Williamson
- 3 Polyphemus, W. Peacock
- 4 Paul Pry, J. Peacock
- 5 Lustre, R. Mills
- 6 Rising Sun, E. Harrop
- 7 Devonshire, J. Nailor
- 8 Waterloo, T. Schofield

Feathered Bybloemens.

- 1 Black Baguet, Z. Peacock
- 2 Edgar, J. Peacock

3 Bienfait, J. Nailor

4 Sarah, T. Leech

5 Violet Amiable, J. Lees

6 Buckley's Beauty, J. Williamson

7 Maid of Orleans, W. Peacock

8 Lancashire Hero, J. Williamson

Flamed Bybloemens.

- 1 Incomparable, A. Leech
- 2 Bacchus, ditto
- 3 Buckley's Beauty, J. Nailor
- 4 Magnus, W. Peacock
- 5 Buckley's Flora, ditto
- 6 Buckley's 71, W. Clayton
- 7 Charlotte, J. Williamson
- 8 Violet Wallers, R. Mills

Feathered Roses.

- 1 Heroine, T. Mellor
- 2 Lady Crewe, R. Mills
- 3 Claudiana, J. Cato
- 4 Newcastle, T. Mellor
- 5 Count, J. Williamson

6 Andromeda, T. Leech

7 Dolittle, J. Buckley

8 Joan of Arc, J. Nailor

Flamed Roses.

1 Unique, W. Peacock

2 Aglaia, J. Cato

3 Triomphe Royale, T. Leech

4 Vandicken, R. Mills

5 Vesta, W. Clayton

6 Vainqueur, T. Mellor

7 Lady Suffield, Z. Peacock

8 Kate Connor, J. Peacock

Bizarre Breeders.

1 Hamilton, T. Mellor

2 Captain Butler, T. Leech

3 Elizabeth, A. Leech

4 Pilot, R. Mills

5 Polyphemus, J. Buckley

6 Seedling, J. Peacock

Byblæmen Breeders.

1 Duchess of Sutherland, T. Moss

2 Lord Denman, W. Peacock

3 Henry Pottinger, J. Peacock

4 Midland Beauty, H. B. Cowburn

5 Salvator Rosa, R. Mills

6 Maid of Orleans, J. Cato

Rose Breeders.

1 Juliet, T. Leech

2 Village Maid, ditto

3 Seedling 19, J. Peacock

4 Alice, T. Leech

5 Lady Stanley, J. Cowburn

6 Arlette, H. B. Cowburn

Selfs.

White Flag, T. Moss

Yellow Model, T. Leech

TULIP SHOW.

At the Town Hall, Blackburn, June 4.

Judges.—Messrs. Wilkinson and Baron.

Best Pan of Six.—Charles, X., Abercromby, Bienfait, Princ Elie, Heroine, Alexander du Roi.

Feathered Bizarres.

1 Charles, X., T. Chippendale

2 Catafalque, Houker

3 Surpass Catafalque, J. Foulds

4 Sulphur, T. Chippendale

Flamed Bizarres.

1 Abercromby, J. Foulds

2 Pilot, T. Chippendale

3 Polyphemus, Houker

4 Charles, X., Pemberton

Feathered Byblæmens.

1 Bienfait, Houker

2 Violet Amiable, Fairbrother

3 Lewold, T. Chippendale

4 Prince Albert, G. Foulds

Flamed Byblæmens.

1 Violet Brun, T. Chippendale

2 Violet Alexander, ditto

3 Incomparable, Fairbrother

4 Bienfait, T. Chippendale

Feathered Roses.

1 Triomphe Royale, T. Chippendale

2 Count, ditto

3 Lady Crewe, Fairbrother

4 Kate Connor, T. Chippendale

Flamed Roses.

1 Triomphe Royale, Houker

2 Kate Connor, ditto

3 Vandicken, J. Foulds

4 Ponceau Brillant, ditto

Bizarre Breeders.

1 Duke of Kent, J. Foulds

2 Charbonnier, ditto

Bybloemen Breeders.

1 Earl of Warwick, Fairbrother

2 Sir H. Pottinger, ditto

Rose Breeders.

1 Juliet, Mr. Fairbrother

2 Madame St. Arnaud, T. Chippendale

Selfs.

Min d'Or, Pemberton

Perfection, T. Chippendale

TULIP SHOW.

At the house of Thomas Harrison, Red Lion Inn, Denton, June 3.

Maiden Prizes.—1. Charles, X., T. Harrison. 2. Lady Crewe, W. Cooke.

Premier Prizes.—1. Charles, X., T. Harrison. 2. Edgar, S. Brown 3. Charles, X., H. Cowburn. 4. Lady Crewe, W. Cooke. 5. Sidney, T. Walker. 6. Polyphemus, P. Howard.

Feathered Bizarres.

1 Charles, X., H. Parsonage;

2 Sir G. Brown, H. Cowburn

3 Magnum Bonum, ditto

4 Pass Catafalque, ditto

5 Lord Lilford, P. Howard

6 Gem, T. Harrison

Flamed Bizarres.

1 San Joe, H. Cowburn

2 Wellington, P. Howard

3 Pilot, H. Cowburn

4 Morning Star, J. Chadwick

5 Black Prince, P. Howard

6 Waterloo, ditto

Feathered Byblæmens.

1 Bienfait, H. Cowburn

2 Violet Winner, S. Brown

3 Lord Vernon, P. Howard

4 Sir H. Pottinger, H. Cowburn

5 Venus, H. Chadwick

6 Washington, P. Howard

Flamed Byblæmens.

- 1 Orleans, P. Howard
- 2 Violet Wallers, S. Brown
- 3 Lord Vernon, W. Cooke
- 4 Bienfait, T. Harrison
- 5 Incomparable, J. Chadwick
- 6 Beauty, H. Cowburn

Feathered Roses.

- 1 Lady Crewe, H. Cowburn
- 2 Heroine, T. Harrison
- 3 Andromeda, P. Howard
- 4 Newcastle, H. Parsonage
- 5 Lady Lilford, ditto
- 6 Comte, S. Brown

Flamed Roses.

- 1 Vesta, P. Howard
- 2 Aglaia, ditto
- 3 Triomphe Royale, H. Parsonage.

- 4 Unique, S. Brown
- 5 Lady Catherine Gordon, T. Harrison
- 6 Lord Hill, H. Cowburn

Bizarre Breeders.

- 1 Captain Nolan, S. Brown
- 2 Sunbeam, ditto
- 3 Seedling, T. Harrison

Byblæmen Breeders.

- 1 Maid of Orleans, W. Cooke
- 2 Prince Albert, H. Cowburn
- 3 Breeder, W. Cooke

Rose Breeders.

- 1 Juliet, J. Chadwick
- 2 Lady Stanley, H. Cowburn
- 3 Lady Crewe, ditto

Selfs.

- Min d'Or, S. Brown
White Perfection, H. Cowburn

TULIP SHOW.

At Mr. E. Hall's, Boar's Head, Ashton-under-Lyne, June 5.

Best Pan of Six Broken Flowers.—S. Barlow, Maid of Orleans, Pass Catalque, Aglaia, San Joe, Heroine, and Violet Wallers.

Best Pan of Three Breeders.—S. Barlow, Sir Charles Napier, Celestial, and Duchess of Sutherland.

Maiden Prizes.—1. J. Kenworthy, Esq., Sir Sidney Smith. 2. J. Lee, Ashtonian. 3. S. Cheetham, Charles X. 4. L. Wild, Crown Prince.

Feathered Bizarres.

- 1 Charles X., J. Lee
- 2 Apelles, J. Newton
- 3 Royal Gem, W. Pickering
- 4 Lord Lilford, J. Ashton
- 5 Sidney, Z. Peacock, Esq.
- 6 Sir Joseph Paxton, ditto
- 7 Rufus, S. Barlow
- 8 Duc de Savoy, W. Pickering

Flamed Bizarres.

- 1 San Joe, J. Dickens
- 2 Polyphemus, W. Pickering
- 3 Lustre, J. Ashton
- 4 Charles X., S. Barlow
- 5 Cato, W. Pickering
- 6 Albion, J. Ashton
- 7 Charbonnier, W. Peacock, Esq.
- 8 Don Cossack, ditto

Feathered Byblæmens.

- 1 Bienfait, J. Buckley
- 2 Ashtonian, J. Lee
- 3 Violet Amiable, W. Pickering
- 4 Sable Monarch, J. Ashton
- 5 Maid of Orleans, J. Wood
- 6 Lancashire Hero, J. Newton
- 7 Washington, W. Wooller
- 8 Hereward, S. Barlow

Flamed Byblæmens.

- 1 Violet Wallers, S. Barlow
- 2 Princess Royal, J. Slater
- 3 Queen Charlotte, W. Garside
- 4 Prince of Wales, J. Wood
- 5 Alexander Magnus, J. Newton
- 6 Van Amburg, J. Wood
- 7 Democrat, G. Broadbent
- 8 Incomparable, W. Pickering

Feathered Roses.

- 1 Heroine, J. Newton
- 2 Hero of the Nile, ditto
- 3 Lady Crewe, J. Lee
- 4 Bion, W. Pickering

- 5 Aglaia, John Turner, Esq.
- 6 Walworth, W. Pickering
- 7 Unknown, Z. Peacock, Esq.
- 8 Village Maid, J. Wood

Flamed Roses.

- 1 Vesta, J. Newton
- 2 Unique, J. Dickens
- 3 Triomphe Royale, W. Pickering
- 4 Lady Suffield, J. Wood
- 5 Aglaia, J. Ashton
- 6 King of Saxony, J. Slater
- 7 Celestial, S. Barlow
- 8 Fairy Queen, W. Pickering

Bizarre Breeders.

- 1 Seedling, J. Ashton
- 2 Seedling No. 1, S. Barlow
- 3 Duke of Hamilton, J. Haigh
- 4 Masterpiece, W. Wooller
- 5 Sir Charles Napier, S. Barlow
- 6 Williston & King, J. Newton

Byblæmen Breeders.

- 1 Duchess of Sutherland, W. Wooller
- 2 Maid of Orleans, W. Pickering
- 3 Belshaw's Glory, J. Wood
- 4 Van Amburg, S. Barlow
- 5 Sir Robert Peel, J. Hilton
- 6 Seedling, J. Ashton

Rose Breeders.

- 1 Lady Catherine Gordon, W. Pickering
- 2 Queen of England, J. Hilton
- 3 Lord Derby, J. Newton
- 4 Anastasia, J. Wood
- 5 Juliet, W. Pickering
- 6 Lady Stanley, J. Wild

Yellow Selfs.

- 1 Min d'Or, J. Ashton
- 2 Yellow Model, W. Garside

White Selfs.

- 1 White Perfection, W. Pickering
- 2 White Flag, L. Wild

GREAT SOUTH LANCASHIRE TULIP SHOW.

At the house of Mrs. Booth, Nottingham Castle Inn, June 6.

Judges.—Mr. D. Potts and Mr. U. Chadwick.

A silver cup was awarded to Z. Peacock, Esq., for the best stand of six rectified flowers, viz., Sidney Smith, Paul Fry, Orleans, Lord Denman, Heroine, and Unique.

Maiden Prize.—Sir Sidney Smith, Dr. W. B. Pickering.

Premier Prizes.—1. Sir Sidney Smith, Dr. W. B. Pickering. 2. Aglaia, S. Barlow. 3. Sir Joseph Paxton, Z. Peacock, Esq.

Feathered Bizarres.

- 1 Sidney, Dr. Pickering
- 2 Charles X., S. Barlow, Esq.
- 3 Jane, J. Turner, Esq.
- 4 Lord Lilford, J. Naylor
- 5 Royal Gem, S. Barlow, Esq.
- 6 Surpass Catafalque, J. Sidley
- 7 Tariff, Z. Peacock, Esq.
- 8 Whitfield Hero, T. Leech

Flamed Bizarres.

- 1 San Joe, S. Barlow, Esq.
- 2 Polyphemus, ditto
- 3 Pilot, John Turner, Esq.
- 4 Vivid, ditto
- 5 Cato, ditto
- 6 Prince of Wales, J. Naylor
- 7 Donzelli, J. Baxendale, Esq.
- 8 Rising Sun, T. Leech

Feathered Byblæmens.

- 1 Edgar, John Turner, Esq.
- 2 Violet Amiable, S. Barlow, Esq.
- 3 Maid of Athens, J. Hart
- 4 Maid of Orleans, S. Barlow, Esq.
- 5 Prince Albert, J. Turner, Esq.
- 6 Bienfait, T. Leech
- 7 Maid of Falaise, S. Barlow, Esq.
- 8 King Robert Bruce, ditto

Flamed Byblæmens.

- 1 Queen Charlotte, John Turner, Esq.
- 2 Van Amburg, ditto
- 3 Beauty of the Plain, S. Barlow, Esq.
- 4 Violet Wallers, ditto
- 5 Elegans, ditto
- 6 Queen of the North, J. Turner, Esq.
- 7 Incomparable, Z. Peacock, Esq.
- 8 Roi de Siam, J. Sidley

Feathered Roses.

- 1 Heroine, John Turner, Esq.
- 2 Lady Crewe, J. Baxendale, Esq.

- 3 Aglaia, J. Hart
- 4 Lady of the Lake, J. Naylor
- 5 Alice, T. Leech
- 6 Joan of Arc, J. Naylor
- 7 Artlette, J. Peacock, Esq.
- 8 Rosy Queen, ditto

Flamed Roses.

- 1 Aglaia, S. Barlow, Esq.
- 2 Unique, Z. Peacock, Esq.
- 3 Rose Camuse, J. Turner, Esq.
- 4 Triomphe Royale, J. Sidley
- 5 Thalestris, T. Leech
- 6 Lady Catherine Gordon, J. Naylor
- 7 Bion, ditto
- 8 Duchess of Sutherland, ditto

Bizarre Breeders.

- 1 Sir Joseph Paxton, Z. Peacock, Esq.
- 2 Duke of Hamilton, J. Peacock, Esq.
- 3 Captain Butler, J. Turner, Esq.
- 4 Seedling, ditto
- 5 Polyphemus, ditto
- 6 Victory, ditto

Byblæmen Breeders.

- 1 Surpass La Grand, S. Barlow, Esq.
- 2 Van Amburg, ditto
- 3 Chellaston, J. Hart
- 4 Princess Royal, ditto
- 5 Seedling 56, J. Peacock, Esq.
- 6 Grace Darling, ditto

Rose Breeders.

- 1 Lord Derby, T. Leech
- 2 Rose Magnificent, J. Peacock, Esq.
- 3 Lady C. Gordon, J. Turner, Esq.
- 4 Nina, ditto
- 5 No. 44, ditto
- 6 Seedling, No. 2, J. Peacock, Esq.

Selfs.

- White Perfection, J. Naylor
Min d'Ore, J. Sidley

LEEDS CENTRAL FLORAL SOCIETY.

At the house of Mr. J. Long, Red Lion, Leeds, July 6.

PINKS.

Judges.—W. Chadwick, J. Boshell, Esq., and P. Radcliffe.

Pans.—1. T. Wainman, Huntsman, Seedling, Seedling, Seedling, Lady Boldhaughton, and Kay's Mary. 2. J. Fryer, Huntsman, Seedling, Criterion, Dan O'Rourke, Seedling, Willmer's Elizabeth.

Purple-laced.

- 1 Huntsman, J. Fryer
- 2 Dan O'Rourke, T. Moore
- 3 Seedling, J. Fryer
- 4 Dan O'Rourke, ditto
- 5 Dan O'Rourke, T. Moore
- 6 Dan O'Rourke, J. Long

Brown-laced.

- 1 Huntsman, J. Fryer
- 2 Criterion, ditto
- 3 Seedling, Wainman
- 4 Ditto, ditto
- 5 Auckland's Mary, ditto
- 6 Seedling, ditto

- Red-laced.*
 1 Dan O'Rourke, J. Fryer
 2 Ditto, ditto
 3 Ditto, ditto
 4 Ditto, ditto
 5 Dan O'Rourke, T. Moore
 6 Ditto, ditto
- Dark-eyed.*
 1 Seedling, J. Fryer
 2 Blackeyed Susan, T. Moore
 3 Ditto, ditto

- 4 Kay's Mary, T. Moore
 5 Ditto, ditto
 6 Kay's Mary, Wainman
- Red-eyed.*
 1 Willmer's Elizabeth, J. Fryer
 2 Pontiff, ditto
 3 Willmer's Elizabeth, ditto
 4 Pontiff, T. Moore
 5 Willmer's Elizabeth, J. Long
 6 Pontiff, T. Moore

At Mr. John Long's, Red Lion Inn, Leeds, August 3.

CARNATIONS.

Judges.—W. Chadwick, S. Hartley, and E. Schofield.

Premier Blooms.—1. Lovely Ann, J. Boshell. 2. Admiral Curzon, ditto
 Pans.—1. Admiral Curzon, Lord Milton, Firebrand, Earl of Wilton, Lovely Ann, Mrs. Norman, and Ada, J. Boshell. 2. Admiral Curzon, Lord Milton, Firebrand, Squire Meynell, Rose Ellen, Miss Nightingale, and Alfred, T. Moore.

- Scarlet Bizarres.*
 1 Admiral Curzon, J. Fryer
 2 Admiral Curzon, T. Moore
 3 Admiral Curzon, J. Long, jun.
 4 Admiral Curzon, J. Boshell
 5 Admiral Curzon, T. Moore
 6 Admiral Curzon, J. Boshell
- Pink Bizarres.*
 1 Lord Milton, J. Boshell
 2 Lord Milton, J. Fryer
 3 Ditto, ditto
 4 Ditto, ditto
 5 Captain Franklin, J. Long, jun.
 6 Lord Milton, J. Fryer
- Scarlet Flakes.*
 1 Firebrand, T. Moore
 2 Ivanhoe, J. Boshell
 3 Ditto, ditto

- 4 Firebrand, J. Long, jun.
 5 Ditto, ditto
 6 Firebrand, R. Jackson
- Purple Flakes.*
 1 Squire Meynell, T. Moore
 2 Squire Meynell, J. Boshell
 3 Squire Meynell, J. Fryer
 4 Beauty of Woodhouse, R. Jackson
 5 Beauty of Woodhouse, J. Boshell
 6 Squire Meynell, J. Long, jun.
- Rose Flakes.*
 1 Uncle Tom, T. Moore
 2 Ditto, ditto
 3 Lady Ely, R. Jackson
 4 Rose Ellen, T. Moore
 5 Uncle Tom, ditto
 6 Lady Flora Hastings, ditto

PICOTEES.

- Purple.*
 1 Alfred, T. Moore
 2 Alfred, J. Fryer
 3 Ada, J. Boshell
 4 Ditto, ditto
 5 Alfred, J. Fryer
 6 Ditto, ditto
- Red.*
 1 Seedling (Duke of Leeds), J. Fryer
 2 Prince of Wales, ditto
 3 Ditto, ditto

- 4 Miss Nightingale, T. Moore
 5 Miss Holbeck, J. Boshell
 6 Prince of Wales, R. Jackson
- Rose*
 1 Mrs. Crowe, J. Long, jun.
 2 Unknown, J. Boshell
 3 Mrs. Crowe, J. Long
 4 Ditto, ditto
 5 Mrs. Crowe, J. Boshell
 6 Mrs. Crowe, J. Long

The seedling Picotee, Duke of Leeds, is considered a very nice sort, something in the way of King James, but much superior to that old variety, being larger, better in the petal, and very smooth edged.

PINK SHOW.

At Mr. Alexander Emery's, Forester's Arms, Stoke-upon-Trent, July 4.

Pans.—1. Huntsman, J. Sturge, and Blackeyed Susan, W. Griffiths. 2. Mango, J. Sturge, and Blackeyed Susan, D. Bloor. 3. Barker's John O'Gaunt, Susanna, and Blackeyed Susan, R. Moorley.

Index.



	PAGE.
Acroclinium roseum, culture of	99
description of	272
Address to the floral community	28
Amaryllis	402
Amateurs' gardens, design for	26
American blight, cure for the	297
Anemone, double	27
Annuals.. ..	69, 98, 187
list of	123
their culture	121
Ant-lion.. ..	206
Antirrhinum, cross-breeding the	156
Ants, how to destroy	186
Aquarium, description of	162
remarks on	163
plants for the	164
Asparagus	32
Asters, culture of	138
Auricula bloom	240
and culture of seedlings	269
crossing the	85
show, Leeds	224
Auriculas	143, 187, 226, 263, 298, 376
best varieties of	333
select list of	272
Australia, sketches of the Flora of	94, 134
Azalea Indica	69, 104, 143, 188
Balsam	296
Balsams, improved.. ..	414
Bedding plants, protection of	430
to preserve	431
Breeding, hints on	139
Burton-on-Trent floral exhibition	327
Calceolaria	70
cultivation of the	210
remarks on improvement in the	140

	PAGE.
Camellias	32, 70, 143, 164, 188
Canterbury Bell, double	411
Cape Geranium, culture of the	43
Cape Heaths	96
management of	160
Carnations	33, 188, 229, 263, 298
insects on	297
propagation of	258
running of the colour of	392
China Aster	415
its culture	138
Chiswick exhibition.. ..	234
Chrysanthemums	33, 263, 417, 432
culture of	15, 50, 88, 154
management of	181
select list of	87
pompones	88
Cineraria, cultivation of the	182, 219
Carnation show, at the Red Lion, Leeds	440
Oxford	374
Cinerarias .. 33, 70, 105, 143, 188, 226, 263, 298, 335, 370, 405, 433	
best twelve	370
Climbers, for a south aspect	68
Colours of flower beds	225
Compost for greenhouse plants	225
Correas, cultivation of	290
Cottage garden	33
Crassula coccinea	401
Cross-breeding	156
Crystal Palace floral exhibition	362
Cucumbers	33, 70, 105, 144, 188, 225
Cuttings, transmission of, by post	14
Dahlia, a word to buyers of the	119
management of the	174
Dahlias	71, 105, 187, 188, 299, 335
descriptive list of	120
instructions for exhibiting	314
most successful in the midlands	120
notes on the new	23
the new, of 1856	48
to propagate	119
Derby Horticultural Society	246
Digitalis wash for plants	404
cross-breeding the	156
Dioscorea batatas	134
Drawing-room gardening	306
Earwigs, to destroy.. ..	404
Editor's address	3
Epacris	34, 105, 144, 189, 264
cultivation and propagation of	100, 170
Ericas,	34, 105, 144, 189, 264
Ferns.—Hardy fernery	343
Floral community, address to the	28
Flower garden, 34, 71, 106, 144, 188, 226, 264, 298, 335, 370, 407, 433	
Flower gardening, a few observations on styles in	5
Fruit culture, No. 1	61

	PAGE.
Fruit culture, No. 2	132
No. 3	222
No. 4	426
Fuchsia, Etoile du Nord, description of	60
Fuchsias, best eighteen for exhibition	305
description of Banks's new	173
descriptive list of new	26
past and present	284
tall, how to obtain	291
Fumigation	369
Geranium cuttings	297
Empress Eugenie	10
Geraniums, descriptive list of	41
new	78
list of fancy	419
list of fancy bedding	184
notes on	39, 78
the new	376
German seeds and seedsmen	152
Good news for florists	102
Gooseberries, large	31
heaviest in each class	81, 149
notes on seedlings	359
notes on showing	80
of 1856, analysis of	148
table of prizes for	150
Gooseberry exhibition, Manchester	361
Greenfly, to destroy	297
Greenhouse 36, 72, 106, 144, 190, 226, 264, 298, 335, 371, 406,	434
plants	403
compost for	225
summer treatment of	246
shading	226
substitute for fire in a	334
Hollyhock, notes on the	335
Hollyhocks	434
Horticultural Society's exhibition	234
Hotbeds, how to make	68
Hunt's Sweetwilliams	303
Hyacinth, hints on the	318
Hyacinths, select list of	320
Hydrangea, cultivation of the	20
Indian Pink, double	411
Kitchen garden 72, 106, 145, 190, 228, 265, 300, 337, 371, 406,	484
Kolosanthes coccinea	401
Judging at shows	166
Lawns	72
Leeds Central Floral Society exhibitions	439
Linum grandiflorum rubrum	429
Luculia gratissima	416
Midland Horticultural Society	320
Mimulus, cross-breeding the	156
Mirror of the season, August	276
October	348
Moir floral exhibition	323
Mr. Slater and Mr. Walker, on Tulips	311, 381

	PAGE.
National Carnation and Picotee exhibition ..	329
Rose exhibition	257
Tulip show	142
hints on the	185
Society	102
New Rose, Isabella Gray	257
N ottingham Horticultural Society's exhibition ..	258, 213
Opinions on flowers, ..	186, 224, 261, 295, 392, 369
Pansies	414
best soil for	187
cultivation of, in pots.. ..	10
descriptive list of, for pots	13
from seed	168
select list of show	321
Pansy, cross-breeding the	114
Peach, raising trees for pot culture of the.. ..	421
Peas, hints on the improvement of	123
list of the best	124
Pelargoniums, 36, 107, 145, 191, 228, 266, 300, 337, 372, 407, ..	435
descriptive list of	41
new	78
notes on	39, 78
Perennials from seed	396
Picotee, cross-breeding the	114
Picotees.. ..	32
Pink, beds and bedding	354
cross-breeding the	112
show, Newcastle-under-Lyne	194
growing	377
Pinks,	107, 145, 191, 229, 266, 300
propagation of	258
Plants and animals compared	211
of remarkable foliage	231
select list of	233
striking from leaves	68
Platycodon Chinense	412
Polyanthus	73
bloom	240
crossing the	84
Potatoes, descriptive list of twenty-one varieties	75
practical management of seed	89
Preservation of young plants	148
Primulas	37
Pruning flowering shrubs	368
Ranunculus, bloom	346
cross-breeding the	111
culture of the	54
notes for June	209
season, review of the	350
the secret of growing the	116
Ranunculuses	37, 73
Reviews—Carter's Seed Catalogue	67
Epps's Catalogue.. ..	430
Glenny's Garden Almanack	430
Henderson's Seed List	67
Rendle's Price Current	67

	PAGE.
Rhododendrons	108
Rosaries	204
to construct	404
Rose, culture of the	200
Roses	38, 101, 146, 229, 407, 300, 372, 54, 435
after treatment of	202
and Rose catalogues	195
best soil for	204
budding	201
exhibiting without buds and leaves	141
how to show	346
Royal national Tulip show	297
Ruins and rockwork in gardens	129
Scottish Pansy Society	242
Seeds, notes on improvement of	141
Shows in the north	339
Sketches of the Flora of South Australia	94, 135
Slugs, to destroy	225
Stamford floral exhibition	286
Stock seed	415
Stocks, double	52
Stockwood Golden Hambro' Grape	403
Stove	38
Strawberries	38, 74, 108, 146, 229, 266, 300, 338, 372, 407
early, in the north	261
Strawberry forcing	24
Sir Harry	404
Superphosphate of lime	19
Sweetwilliam, cross-breeding the	156
Sweetwilliams	413
double	143
hintson	303
propagation of	298
Torenia Asiatica	288
Tropæolum tricolor	206
Tulips	230, 300
loss of	247, 293
protection of	42
remarks on the National Exhibition of	102, 142
Tulip, a few words on protecting the	351
bloom	101
cross-breeding the	115
physiology of the	65, 126
planting and protecting the	365, 307
protecting the	377
question, the	317, 358
seed, practical management and cultivation of	58
show, at Blackburn	163, 409
Boar's Head, Ashton	438
Great Harwood	409
Holtnill	410
King's Head, Audley	192
Leigh	408
Nottingham	361
Old Cross, Ashton	193
Red Lion, Denton	437

	PAGE.
Tulip show, at Ridge Hill, Stalybridge	193
Royton	110
Sandbach	301
Shaw Heath, Stockport	435
South Cheshire	360
Stalybridge	199
Stockport	302
the Town-hall, Blackburn	437
Wakefield	109
White Hart, Hooly Hill	436
Great South Lancashire	439
notes on the National	278
the Royal National	251
Vegetables and flowers	159
select list of	310
Verbenas,	74, 106, 146
Vine culture	340
planting	385
Vinery,	38, 74
Vines, calendarial hints on, for out-of-doors	390
varieties of, for out-door culture	324
Window plants	38, 74, 48
Wood, J. F., sketches of Australia	94, 135

LIST OF ENGRAVINGS.

Aquariums (two illustrations)	162
Désign for amateurs' gardens	97
Fern case	306
Fuchsia, Etoile du Nord	60
Geranium, Empress Eugenie	10
Rose, Isabella Gray	287
Vine border	322

